

**ONLY
58p****COMPUTER
EXPRESS****BRITAIN'S BIGGEST SELLING COMPUTER WEEKLY****AMIGA**

- Bundle for under-11s
- Nordic cartridge
- CharityWare launch

ST

- MIDI 'brain machine'
- Theme Park Mystery
- ...and a mystery prize

PC

- NeXT OS for the PC
- LocoScript at last
- LHX Attack Chopper

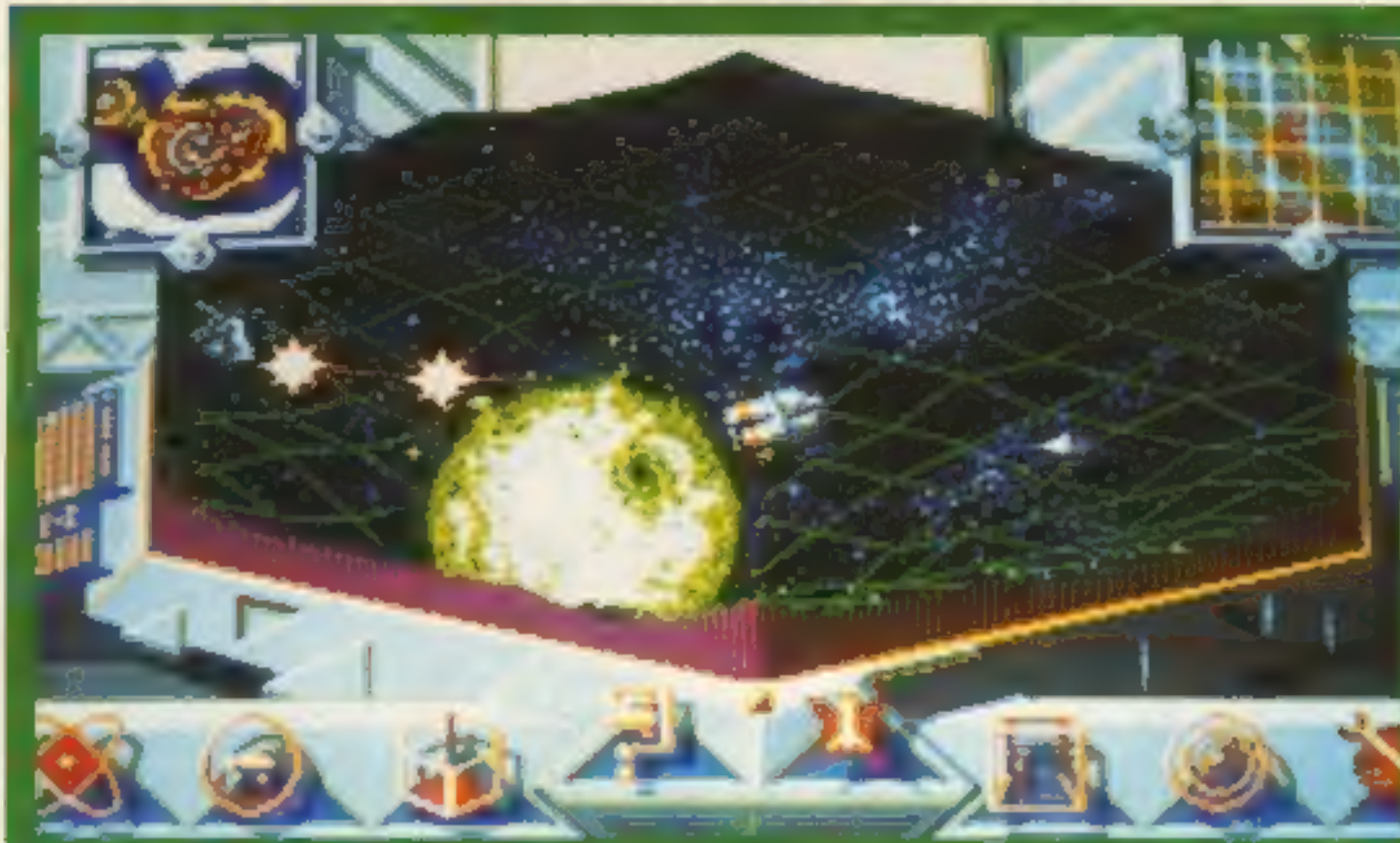
PD SOFTWARE

- WP for your CPC
- Music for the Mac

SPECTRUM

- Hyperlane shoot-up

**BBC•C64•ARC
XE•COUPE•QL
MSX•CPC•PCW**

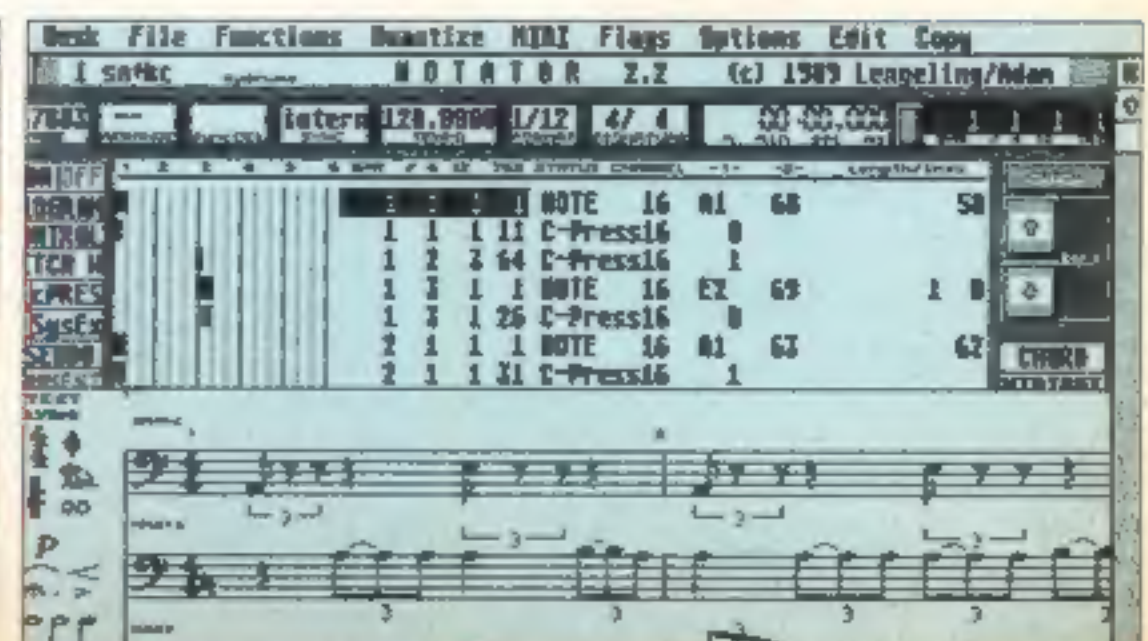
SPECIALIST COLUMNS

Gravity: is this the Amiga's weirdest game yet? See review page 12

Read Shopping Express, the bumper 32-page guide – best for price and best for advice

CBM PLANS NEW AMIGA

Under development: top secret high-end Amiga portable page 3



CONTENTS

GET EDUCATED 50

The top teaching titles on test

MUSICAL STAR 52

ST sampling and sequencing surveyed

NEWS 2

Five pages hot from the presses

COMMENT/ARCHIVE 8

From past to present

THE PD COLUMN 44

The best of the public domain surveyed

TECH TIPS 56

The manual from Uncle

LETTERS 60

Soap box city

SHOPPING EXPRESS

BUYERS' GUIDE: MODEMS, PORTABLES & PRINTERS 19

Blow-by-blow guide to essential peripherals

READER ADS 30

Hundreds of second-hand bargains

FOR SALE 34

The cheapest dealers in the UK

EXPRESS JOBS 38

Jobs? We got 'em

FREE ADS FORM 46

Place your ad - free

YOUR MACHINE

AMSTRAD CPC 9

BBC MICRO 9

SPECTRUM 10

SAM COUPE 10

AMSTRAD PCW 10

MSX 10

SINCLAIR QL 11

ATARI XE 11

ARCHIMEDES 11

COMMODORE 64 11

AMIGA 12

PC COMPATIBLES 14

ATARI ST 16

Full-colour Gamegear out in Japan in September

SEGA'S HAND-HELD IN UK NEXT YEAR

As first predicted in *Express* (issue 35), Sega is to launch a colour hand-held games machine based on its original games console.

The Sega Gamegear will be released in Japan this September with a UK launch pencilled in for mid-1991. A price of \$130 has been set in the US - some \$20 cheaper than Atari's colour Lynx. The UK price is likely to reflect that.

Gamegear features a 3.2-inch LCD colour screen displaying 32 colours from a palette of 4,096. At the centre of the machine is an 8-bit Z80A processor. It runs on six batteries which will last for three hours.

Gamegear measures 103 millimetres long, 210mm wide and 38mm thick. As



• An artist's impression of the Gamegear.

was expected, it will resemble the kidney shaped game controllers of the 16-bit Sega Megadrive with a thumb-controlled joystick.

Sega has ambitious plans for the

Gamegear. The firm claims it will sell one million units within the first year.

Games lined up include puzzlers such as *Columns* and *Dengo* as well as *Super Monaco Grand Prix*. They will cost about £20 each.

It is not yet known if the hand-held will be compatible with the wide range of Sega games already available, but it is thought unlikely that this will be able to be achieved.

Despite the machine's impressive technical specification, Sega will have problems catching up with the runaway success of Nintendo's black-and-white Gameboy. That is reported to have sold nearly 4 million units since its launch a year ago. ■



Bulging CD

A CD-ROM disk from Quantum Leap Technologies is claimed to be the largest CD-ROM collection ever produced. The disk, with 2,570 art files, 931 games 828 HyperCard stacks, 1,260 demos, 1,180 sound files, 1,453 music files and over 1,000 utilities totals over 719Mb of information. Quantum Leap collected the files from user groups and bulletin boards and is selling it to Apple Macintosh owners in the US for \$99. (Newsbytes) ■

• The Mac gains a packed CD-ROM.

Hanover attendance figures up

The recent Hanover CeBit - Europe's largest computer show - attracted a record 560,000 visitors over the 10 days it lasted.

That's nearly 50,000 more than last year's event. In comparison, Britain's premier computer event, this week's *Which*

Computer? Show in Birmingham, is likely to attract around 150,000 visitors.

Next year's Hanover Messe will be held at between March 13 and March 20 and the Germans will be partnered by Hong Kong. The USA partnered them in last month's show. ■

Apricot sold to Mitsubishi

Apricot, the long-established British manufacturer of personal computers, has sold off its hardware division to Japanese giant Mitsubishi.

The division was bought for £39 million - some £22.6 million more than its estimated worth. Mitsubishi has gained a manufacturing plant in Scotland, research and development facilities, a sales and marketing set-up and the Australian subsidiary. The firm will also have gained the high profile Apricot name.

Apricot's remaining operations, centering on software and support, will be renamed ACT.

Other companies which had been involved in discussions with Apricot included Commodore (*Express* 70).

For the year ending March 31 1989 Apricot made profits of £2.5 million. ■

Coin-op converted from home micro game!

A home computer game looks set reverse the usual trend and blast its way into the arcades as MicroProse's *F-15 Strike Eagle* takes off on a mission to empty the pockets of would-be pilots.

The popular flight simulator cum shoot-'em-up, which MicroProse says offers "instant gratification", has been captured, put in a cabinet and consigned to coin-op land.

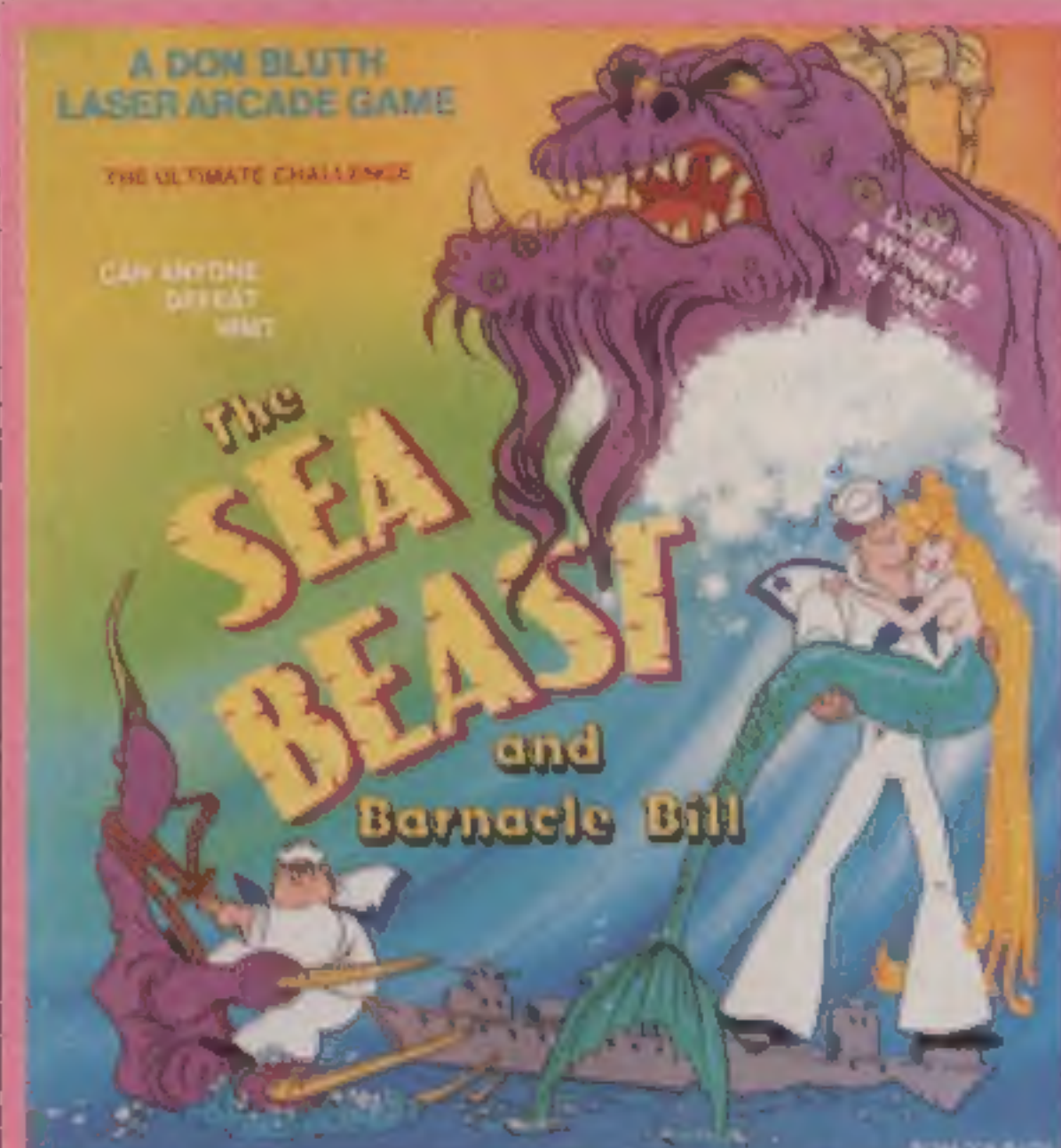
The arcade version contains some stunning 3D graphics - the animation techniques used draw filled polygons incredibly fast to give a sense of perspective.

Chuck Grempler, MicroProse's engineering director, claims that *F-15* can generate 60,000 polygons per second and regenerate itself at 30 frames a second.

Already a success on most computer formats, *F-15* is expected on this side of the Atlantic in the autumn. ■

• F15 Strike Eagle: coining it.





* Sea Beast: interactive laser excitement.

Latest lasers from Space Ace ace

The company that brought you ace arcade faves *Dragon's Lair* and *Space Ace*, Sullivan Bluth Interactive, will be releasing a new 50Mb Laserdisc game this autumn.

The *Sea Beast* and *Barnacle Bill* will feature static backgrounds, produced using traditional animation techniques, and computer generated foregrounds. The intention is to allow gamers full interactive control over the animated aquatic characters.

Meanwhile, the company's digital Disney, top-animator Don Bluth, envisages a film version of *Dragon's Lair* to follow his latest movie *All Dogs go to Heaven* and his next efforts *Rock-A-Doodle* and *A Troll in New York*.

The good news for home gamers is that all future film releases will make it to most machine formats, and the company envisages fully interactive cartoons in the home within three to five years providing a market "eventually as big as the film market".

Given the company's interest in CD-ROM and secret negotiations with Philips to use its Compact Disc interactive (CDI) system this claim could ring true as Sullivan Bluth gears up towards producing 10 computer cartoon products a year.

High-end machine will revolutionise multimedia

PORTABLE AMIGA IN THE WINGS AT CBM

Commodore's top-secret high-end Amiga portable may yet be on the market for this autumn's peak sales period, although a spring 1991 launch now appears more likely.

Technicians at the firm's Californian research and development centre have been working on the project for two years now, in parallel with the CD-based games machine variously known as the Amiga Baby, the AC-DC and the Black Beauty.

Many technical and marketing options are still under consideration for the portable, and even at this late stage Commodore is understood to be still unsure that the launch is viable.

One of the research team's headaches has been the question of powering the machine. The Amiga contains five dedicated chips, each of which draws a comparatively high level of current. Although Commodore has a foot in the door with power-efficient alternative technology developers, the company is said

not to be pursuing these possibilities yet.

Also, although including the Workbench on ROM would be a feasible answer to the irritant of frequent disk-swapping, because the perceived market niche for a portable Amiga lies with high-end users a hard disk is regarded as virtually essential, and this will be even more of a power guzzler.

For these reasons battery life on a laptop Amiga would almost certainly be too short for serious use, and it seems likely that the decision has been taken to make the machine a mains-only model.

LUGGABLE

While this means that the machine will not be pitched as an on-the-move solution, but rather as a 'luggable' which can easily be moved from one site to another, most of the tasks for which a portable Amiga may be needed should be within easy reach of mains electricity.

A variety of considerations leave little

option on the machine's display type. Because much of the Amiga's attraction lies in its graphical capabilities, an LCD screen will have been ruled out.

While Commodore would certainly like to launch a top-end colour portable, the price of technology in this area remains prohibitively high at present, and a VGA-quality mono gas plasma display is considered the only sensible option.

This will not, of course, stop the machine from actually performing its tasks in colour. Television, video and multimedia users are unlikely to be put off by a mono display, and will almost always be able to view the end results on their work on external colour monitors anyway.

MIDI

Already into a relatively high price bracket, Commodore is not expected to skimp on other aspects of the machine, and it is believed that a built-in MIDI interface will be included, with further expansion slots available.

Apple has already successfully pitched this growing market with its innovative Macintosh portable, while Atari is also happy with sales of its ST portable, the Stacy.

As yet no price has been fixed, but it is thought unlikely that the Amiga portable will be sold for less than £2,000. The Mac portable costs £4,500.

As well as Commodore's own Amiga portable, German company Gigatron has been working on a similar project. Gigatron's machine is close to completion, but negotiations between the two companies are now on hold.

Commodore keeps quiet

Commodore is not prepared to discuss its portable at all, and officially does not even admit that the project exists, although it is standard policy not to speak about products until they have been launched.

Indeed the company will not yet comment on its new education bundle (see page 7) and right up to the eve of this week's *Which Computer?* Show it refused to divulge any information on the Amiga 3000, unveiled this Tuesday.

Pre-show rumours about the A3000 were of not one but two workstations (16MHz and 25MHz) with 2Mb of RAM switchable between a new AmigaDOS and Unix 5.4, and retailing somewhere around the £6,000 bracket.

Official details in *Express* next week, on sale Thursday.

Loco PC out at last

LocoScript for the PC will be in the shops at the end of this week. PC owners have been waiting for the program to arrive since publisher Locomotive announced it last September.

LocoScript PC contains mail merge, database and programming facilities and has the ability to import files from other word processors. A serial cable will be available for upgraders to transfer their PCW files to the PC. Cost is £125 or £99 for PCW upgraders.

More information from Locomotive on 0306 740606.

Shortage of workers hits

A countrywide shortage of 20,000 computer workers looks set to increase by at least 13,000 per year, says the National Economic Development Council.

The jobs up for grabs aren't the high tech glamour jobs but the more mundane work in maintenance and data processing. These functions can take up to 70 per cent of a data centre's resources.

To make matters worse the 'demographic time bomb' will make skills shortages appear worse because of the predicted changes in the pattern of the working population.

The National Computing Centre (NCC), a body charged with promoting best practice in data processing, suggests that there are plenty of people who want to work if given the chance.

Big Green? not just yet

IBM is cleaning up its poor record in environmental matters. The world's biggest company has announced a 53 per cent reduction in the emission of harmful chlorofluorocarbons (CFCs) into the atmosphere from its major manufacturing plant in California.

The factory in San Jose was flagged as one of America's worst polluters in 1988 with a CFC emission of 500,000lb. In 1989 that had been reduced to 237,000lb.

A large volume of CFCs had been used to wash disk drive parts during manufacture, but the new method uses less hazardous water-based products.

"This reduction in CFC emissions is the result of a plant-wide effort on many fronts," said the factory's environmental programs manager June Anderson. "The greatest reduction was made possible by the use of more efficient cleaners."

Even so, the company admits it is still releasing a high amount of methyl chloroform which is used to make magnetic recording heads. However, at present there is no suitable alternative.



• New from Hewson: Nebulus 2 (left) and Scavenger (above).

Nebulus returns

Fans of Hewson's original tower climbing shoot-'em up game Nebulus can look forward to a new version.

Nebulus 2 features the same frog-like character working its way through 16 levels of towers and baddies. It will be available for the ST and Amiga. Also expected soon is Scavenger, a multi-level game. ■

Borland aims at 1-2-3 users

Borland is offering users of rival spreadsheets a cheap upgrade to Borland Quattro Pro.

For £99.95 Borland will upgrade users of Lotus 1-2-3 versions 2 and 3, Supercalc versions 4 and 5, Symphony and PC Excel.

In a similar way to WordPerfect's offer on PlanPerfect last year, the initiative challenges the tradition of software users 'marrying' themselves to a supplier.

It's usual for publishers to offer cheap upgrades to existing users thus scotching any realistic notion of changing package. The high cost of a completely new package forces users to remain with the upgrades of their old product, even if they are dissatisfied with it. ■

The world of CD-ROM

Mindscape is to launch a CD-ROM version of its PC program World Atlas.

The disk will cost £99 and is an enhanced version of the floppy program recently launched. It incorporates more colour graphics of maps from around the globe, as well as highlighting data on population, economics and politics. It will be out in three weeks.

For more details call 044486 545. ■

AIDS BB

A Californian bulletin board has opened a free AIDS information section for victims of the disease.

Fog City On-Line Information Service includes an on-screen book called *Surviving and Thriving with AIDS* contained on a 7Mb hard disk.

There is also an international section where users can leave messages and information related to the condition. ■

£599 PC clone pits Dutch firm against Amstrad

PHILIPS UNVEILS ITS NEW LINE-UP OF PCS

Philips has launched a new range of laptops and desktops for the serious home user as well as the office.

The complementary PCD (desktop) and PCL (laptop) ranges come with Microsoft Works, an integrated software package. Also included is the game *Indiana Jones and the Last Crusade*.

The desktop series starts with an entry-level single drive 10MHz XT for £599, and includes 286 and 386 colour and mono VGA models. A mouse is included with the package.

All the desktop machines feature a small footprint and a 'designer' fascia.

The PCL 101 is an XT single floppy laptop with a footprint smaller than a sheet of A4 and a thickness of about an

inch. It weighs slightly under five pounds but the price tag of £1,199 makes it something of a heavyweight for the home purchaser.

It has a backlit mono CGA LCD screen and a power thrifty 80C86 CMOS processor.

Other laptops are the 80C286-based PCL 203 and 204 with 20Mb and 40Mb drives at £2,399 and £2,799. The 203 and 204 have backlit mono VGA screens with 16 grey scales measuring 224mm by 98mm.

Included with all machines is an instant call-out maintenance package and Philips is offering in home or office training free until September.

Contact Philips on 01-689 2166. ■



• The designer look for the new Philips PC.

Defender adventure is back

A follow up to the highly-acclaimed *Defender of the Crown* is to be launched by Electronic Arts.

Defender of Rome gives you, a young officer, the chance to build and defend ancient Rome against the unwashed hordes. Whether to quash the barbarians by diplomacy or sending in the legions is just one of the options in a game which Electronic Arts claims features strategy and role-playing scenarios coupled with "cinematic animation".

Defender of Rome has been written by Kellyn Beeck who was responsible for *Defender of the Crown*. It will be launched for the PC in six weeks at £24.99. ■



• *Defender of Rome*: battle it out.

Chablis and chips

Computers that can learn could be choosing the wines of the future.

Neural networks currently being developed could be used to test the various qualities of wines.

Work at Edinburgh University has been helped along by an injection of government cash for artificial intelligence (AI) research. This funding could bring the robot maître d' one step closer.

By repeated trial of samples the computer could build up a nose and palate. It could learn to distinguish between wines identified for it, and as the amount of alcoholic data increased could take a knowledgeable guess at an unknown sample. ■

Taiwanese factory caught with stolen software

ATARI'S FURY AT PC PIRACY CHARGE

Atari has been charged with software copyright infringement by the Business Software Alliance following a police raid on the company's Taiwan factory.

The police found allegedly pirated copies of Ashton Tate's dBase III and Lotus' 1-2-3 PC software. The police raid was instigated by the Business Software Alliance of which both Ashton Tate and Lotus are key members.

The BSA says it has every intention of stamping out piracy in Taiwan. Premises of The Pacific Wire and Cable Company of Taipei were also raided and software was seized. Taiwanese law provides for statutory damages of 500 times the retail value of the programs.

Atari has responded to the charge forcefully. In a published statement president Sam Tramiel said: "Atari has a long standing corporate policy against the copying of software and does not permit unauthorised duplicates of software to be used for corporate functions or any other purposes. PCs are allowed at the Taiwan



• Jack Tramiel: furious.

plant for employee's personal use. The Atari Taiwan Manufacturing Corp plant uses an IBM 360 mainframe computer and MAPICS software along with Atari ST computers and software for operations and engineering.

"While we support the ideals of the BSA in its endeavor to stop piracy we

believe that they are misdirected and have blown this matter completely out of proportion and have failed to fully investigate the facts or meet with Atari. We are investigating the matter at this moment and will take such actions as are appropriate but we believe that if duplicates were found in the plant, they were the result of individual employees who did so for their own personal use on their own computers and clearly without authorisation."

Such is the internal fury the charges that Atari's man of war Jack Tramiel has spoken out. "It is highly unfortunate that time and effort are wasted on such a matter when billions of dollars of revenue are being robbed from American companies each year by mass producers of pirate software," he said. "Each year Atari loses millions of dollar in revenue due to pirate video game producers in Taiwan who manufacture exact duplicates of Atari equipment and sell them the world over, yet that is not the issue they choose to investigate or take a stand against."

The 'ultimate' football game

If you can't afford a ticket to Italy in June Grand Slam can give you the next best thing. England: The Ultimate Football Game is a 3D football simulation that takes you through the World Cup and other tournaments.

You control one player and the computer controls the rest. You can change players, and foul play can lead to bookings.

In between the action and games is management mode, where you can take a breather and make changes to the squad.

8-bit cassettes will cost £9.99, disks £14.99 and ST and Amiga versions £19.99. ■

Konix plans new joysticks

Konix is planning to launch a series of new peripherals and joysticks later this year.

The firm last week took time off from working on its long awaited Multi System console to predict that it will have sold one million joysticks by the end of this year. The firm says its joysticks are more popular than ever with 50,000 sold already this year.

Managing director Peter Puresevic said £1 million had been spent on research and development over the past 12 months. While some of this money has gone to the console, some has been saved over for joystick developments. ■



• Some of the Konix range.

COMPUTER SYSTEM BRINGS NEWSPAPERS TO THE BLIND

Blind people will soon be able to 'read' the national newspapers thanks to a new computer service. The Digital Daily Newspaper will give blind people the news on the day that it happens.

At present they have to either wait for weekly extracts on a cassette tape or ask a sighted friend to read the paper to them.

The new system will let them skim through a paper and choose what they read in the same way as a sighted person reads a printed paper. It will be broadcast through speech synthesis or Braille display.

The trial scheme is organised by the Royal National Institute for the Blind. It transmits text from The Guardian via television signals to a computer in the blind person's home.

In the trial scheme, the text from The Guardian is split into five

sections: home, foreign and financial news, features and sport.

The files from the newspaper are sent to AirCall Teletext using the packet switchstream network and the data is broadcast in the TV signal like teletext. A decoder on the TV aerial detects the start of the signal and captures the separate files and relays them to the blind person's terminal.

With the computer fixed to a speech synthesiser or a Braille display, the blind person can read or hear the newspaper. It is possible to search the newspaper for up to 10 keywords. This only takes four minutes.

Now that the trial is a success, the system is being released later this year for around £200. More from RNIB on 01-388 1266. ■

ST goes to the head

Two Dutch computer users have developed an Atari ST-based 'brain machine'.

Such devices recently hit the news with the introduction of the MC² at the CES Show in Las Vegas (Express 67). The systems work by relaxing the user into a state of peace by altering brain waves into alpha and theta categories. This is said to allow the user greater concentration, relaxation and creativity.

The new Brain Wave Lab software/hardware combination allows the use to control both the visual stimulator and the audio information via the program's edit screen.

Inventor Jim Waffer explained: "My friend wrote the program and I worked on the hardware which includes a pair of glasses which are plugged into the printer port. With the program you can control the orange LED in each eye and adjust the sensitivity and speed.

"Sound comes from the audio output of the ST monitor and you can use standard cassette tapes with the system if you can tune in with the original timing. Then you just control the sequencing of the frequencies."

Besides being Atari-based it is also the first brain wave synthesiser to work with MIDI, so you can hook up any MIDI device or instrument with it.

It should be launched in a few months at a retail price of £100. ■

Nintendo shoots 'em up

Nintendo's promise to smash the software pirates was backed up by US Customs agents when they arrested four people in North Carolina for dealing in counterfeit games cartridges worth \$60,000.

Nintendo investigators worked for weeks with customs agents to track down and seize the 'multiple game' cartridges. The operation involved spy cameras and elaborate recording equipment. Some \$10,000 in marked money was used to tempt and finally trap the alleged counterfeiters.

The cartridges each contained up to 40 games and required an adapter to allow them to run. ■

Travel by micro

Thanks to new computers, travellers will soon be able to buy seats on chartered flights without going to a travel agents.

Seven new 'hole in the wall' machines are to be installed in locations around the country by Birmingham-based Holidays Now.

Users simply have to punch in details of their travel requirements and slot in their credit card. It is hoped that the machines will eventually be available all over the country. ■

Abbot

Telephone: Malvern (0684) 562061/569059

Fax: (0684) 569237

All Prices Include
V.A.T. Carriage
£11.50 per order.

PLEASE ASK US TO
QUOTE FOR ITEMS
NOT LISTED

LIMITED OFFERS

Abbot Computer Products Ltd.
Foley Bank, Worcester Road,
Great Malvern, Worcs. WR14 4QW

Access

VISA

COMMODORE STARTER PACKS

Price Includes One Year On-Site Warranty, Integrated Software, Training Video, MSDOS Tutorial and Typing Tutor - **THE IDEAL BEGINNERS COMPUTER!**

PC10 (XT) Single Drive/12" Mono	£603
PC10 (XT) Single Drive/12" Colour	£767
PC10 (XT) Single Drive/14" VGA Mono	£791
PC10 (XT) Single Drive/14" VGA Colour	£897
PC10 (XT) Dual Drive/12" Mono	£657
PC10 (XT) Dual Drive/14" Colour	£822
PC10 (XT) Dual Drive/14" VGA Mono	£844
PC10 (XT) Dual Drive/14" VGA Colour	£950
PC20 (XT) 20Mb HD/12" Mono	£844
PC20 (XT) 20Mb HD/14" Colour	£1032
PC20 (XT) 20Mb HD/14" VGA Mono	£1056
PC20 (XT) 20Mb HD/14" VGA Monitor	£1162
PC30 (AT) 20Mb HD/14" Mono	£1220
PC30 (AT) 20Mb HD/14" EGA Colour	£1423

COMMODORE AMIGA

A500	CLASS OF THE NINETIES PACK	£548
	(Includes Amiga 500, Modulator, Midi I/F, Deluxe Paint II, Publishers Choice, Maxiplan 500, Superbase Personal, Midi Software, Logo and BBC Emulator).	
A500	BATMAN PACK	£380
	(Includes Amiga A500, Batman, New Zealand Story, F16 Interceptor and Deluxe Paint II, Modulator).	
A500	FLIGHT OF FANTASY	£379
	(Includes Amiga A500, F29 Retaliator Mouse, Modulator, Deluxe Paint II, Escape from the Planet of the Robot Monsters and Rainbow Island).	

AMIGA ACCESSORIES

A2010 1Mb 3.5" FDD	£135.24
AA2032 PAL Comp. Card	£95.22
A2058/2 8Mb Board (2Mb)	£626.52
A208 2Mb Upgrade	£372.25
A2058 6Mb Upgrade	£1104.57
A2090 20Mb Hard Disk	£616.86
A2090 40Mb Hard Disk	£1014.30
A500 1Mb 3.5" FDD	£80.77
A590 20Mb Hard Disk	£369.70
Casio Midi Keyboard	£71.63
Contriver Mouse	£25.82
Marconi Trackerball	£51.70
Vidi - PAL Version	£99.14
Vidi - Chrome Col. U/G	£17.20
Hitachi B/W Video	£246.63
Camera (including 16mm lens)	

**PLEASE TELEPHONE FOR OUR
COMPLETE AMIGA HARDWARE
AND SOFTWARE CATALOGUE**

AMSTRAD PC1512

Supplied with Migent Ability Integrated Software and Four Games.

Single Drive/Mono	£414
Dual Drive/Mono	£519
Single Drive/Colour	£519
Dual Drive/Colour	£623

AMSTRAD PC1640

Single Drive/Mono	£571
Dual Drive/Mono	£675
30Mb HD/Mono	£883
Single Drive/Colour CGA	£675
Dual Drive/Colour CGA	£779
30Mb HD/Colour CGA	£986
Single Drive/Colour ECD	£779
Dual Drive/Colour ECD	£883
30Mb HD/Colour ECD	£1090

AMSTRAD PC2086

Supplied with Lotus Symphony (worth £550.00 plus VAT)

Single Drive/12" VGA Mono	£622
Dual Drive/12" VGA Mono	£726
30Mb HD/12" VGA Mono	£934
Single Drive/14" VGA Colour	£778
Dual Drive/14" VGA Colour	£882
30Mb HD/14" VGA Colour	£1090
Single Drive/12" VGA Colour Hi-Res	£830
Dual Drive/12" VGA Colour Hi-Res	£934
30Mb HD/12" VGA Colour Hi-Res	£1142
Single Drive/14" VGA Colour Hi-Res	£934
Dual Drive/14" VGA Colour Hi-Res	£1038
30Mb HD/14" CGA Colour Hi-Res	£1246

PRINTERS

Amstrad DMP3160 80col/160cps/P	£141
Amstrad DMP3250 80col/160/40cps/S&P	£148
Amstrad LQ3500 24pin/80col/160cps/P	£229
Amstrad LQ5000 24pin/136col/288cps/P	£378
Citizen 180E 120cps/80col/P	£205
Citizen MSP15E 160cps/136col/P	£256
Citizen Prodott9X 300cps/80col/P	£391
Citizen Prodott24 200cps/24pin/S&P	£499
Citizen Swift24 194cps/24pin/80col/P	£347
Star LC10 80col/125cps/P	£169
Star LC10C Colour/80col/125cps/P	£206
Star LC10II 80col/180cps/P	£192
Star LC15 132col/120cps/P	£332
Star LC24 - 10 80col/24pin/180cps/P	£246
Star LC24 - 15 136col/24pin/200cps/P	£401
Star FR10* 80col/300cps/P	£384
Star FR15* 136col/300cps/P	£501
Star XB24 - 10* 80col/24pin/240cps/P	£500
Star XB24 - 15* 136col/24pin/240cps/P	£659

* INCLUDE 1 YEAR ON-SITE MAINTENANCE
PLEASE CALL FOR ACCESSORIES/RIBBONS PRICES

PARALLEL CENTRONICS PRINTER LEAD - £8.65

BUSINESS HOURS

MONDAY - FRIDAY 8.00 am to 6.00pm
SATURDAY 8.30 am - 5.30 pm
SUNDAY 10.00 am - 12.30 pm

ATARI

520STFM DISCOVERY PACK	£270
(Includes Bomb Jack, Carrier Command, Out Run, Space Harrier, STOS, Neo-Chrome, First BASIC, ST Tutorial and Discovery Book)	
520STE Computer	£409
1040STE Computer plus Hyper Pack	£477
1040STE Computer plus Midi Men Music	£489
1040STE Computer plus Superpack	£489

LYNX - HANDHELD

The Atari LYNX is a fully portable handheld colour games machine and features include:- 16 COLOURS FROM A PALLETTE OF 4096, 3.5" COLOUR BACKLIT SCREEN, PLUG-IN SOFTWARE, JOYPAD, POWERFUL SOUND EFFECTS, 4 CHANNEL SOUND.

Price (includes CALIFORNIA GAMES).....£166

MONITORS

Amstrad 12" Mono VGA (66 Grey Scale)	£148
Amstrad 14" Colour VGA (0.42 D/Pitch)	£263
Amstrad 12" Colour VGA Hi-Res (0.28)	£378
Amstrad 14" Colour VGA Hi-Res (0.28)	£493
NEC Multisync 2A	£485
VGA Card	£194
Philips CM8833 Stereo Monitor	£265

HARD DISK DRIVE

30Mb Hard Card	£236
----------------	------

AMSTRAD MODEMS

MC2400 2400 Baud Modem Card	£206
SM2400 2400 Baud Modem	£258

AMSTRAD FAX MACHINE

FX9600T Fax Machine	£620
FX 5000T Fax Machine	£425
Fax Paper (10 x 30m rolls)	£42

**FINANCE AVAILABLE
THROUGH
WYVERN ASSOCIATES,
MALVERN, WORCS.
LICENCED CREDIT
BROKERS No. 140662**

**CONFIDENTIALITY
ASSURED**

**WRITTEN DETAILS ON
REQUEST**

IF YOU CAN FIND LOWER PRICES ANYWHERE
- PLEASE CONTACT US..... WE WILL
ENDEAVOUR TO MATCH OR BETTER THEM

Computer verdict on unfit drivers

You come out of a party after a pint or several, stagger into your car, turn the key and it refuses to start. The car has decided that you're unfit to drive and no cajoling will persuade it to start. A good job as well.

US companies have developed computer video devices that can evaluate performance levels, and if alertness drops below a preset level, the ignition is automatically disabled.

When a driver gets into his car, he will have a task such as twiddling knobs to keep a wandering pointer in the middle of a screen.

A similar system is installed in the bus depot at the Old Trolley Firm, San Diego, California. Bus drivers have a simple 30-second video game to complete before they're allowed to take a bus out.

When a young driver failed the test on two consecutive days, enquiries revealed that he was suffering from stress as his engagement had been broken off.

NeXT in line for the PC

The NeXT machine's stunning graphical user interface, NeXTStep (see Express 69), will soon be available for your PC.

IBM has announced that NeXTStep will soon be out for PS/2 personal computers running AIX, which is IBM's version of the Unix operating system.

The NeXTStep interface will bring a truly Macintosh-like screen to the PC for the first time, without fear of legal action. The NeXTStep system allows the user to control the machine with the mouse, in the same way as the ST's GEM or the Amiga's Workbench, but is much more sophisticated.

AIX Unix isn't compatible with NeXT Unix (known as Mach) so NeXT programs will need to be recompiled to run on IBMs and vice versa. No price or availability yet, but watch this space.

Enter the Dragon

Another Dragon show has been organised proving that the popular 8-bit will not lie down and die.

The time and the place? 21 April in Ossett Town Hall, near Wakefield in West Yorkshire. Doors are open 10am to 3pm and admission is £1 or 50p for children.

User groups, Dragon producers and clubs will attend. Anyone wanting to know more should contact organiser Robert Preston on 0656 880965.

New Amiga bundle for primary school children

COMMODORE GOES FOR THE YOUNG ONES

Commodore is planning to launch a special Amiga bundle aimed specifically at the under-11 age group.

The new bundle will feature leading software packages which have already proved popular among children. All will have educational themes designed to attract parents.

The decision follows the apparent success of the Class of the '90s educational bundle launched last September. Commodore feels this option is too sophisticated for younger children and is therefore searching for an alternative.

Insiders say it is in direct response to a number of calls from parents looking to buy a computer for their children. In the past Commodore has been forced to admit that the Amiga as it stands is not necessarily the best all-in-one option for young schoolchildren.

However, the Junior Class of the '90s will put the company in a position to pitch to parents. The price of the bundle will be the same as the original education package - £499.

Commodore's education chief Peter Talbot preferred not to comment on his plans, but said such a bundle had been discussed and would be arriving later this year.

• Commodore is also planning a C64 bundle with a footballing theme in tie in with the World Cup.



• Class of the '90s: Junior version in September.



• Mickey Mouse: Disney game.

Taking the Mickey

The Disney cartoon greats are being digitised and will have their own computer label from September.

Disney Software is releasing eight titles featuring famous cartoon characters. The emphasis will be on education, but there will also be some games.

The label will cover the major computer formats and there may even be console versions. With a large world-wide audience, Disney is planning different products for the market requirements.

Disney spokesman Joan Lauback refused to be drawn on product details but confirmed that Disney is looking at the requirements of the UK market to fit its demands.

Computer snoop fined

Melbourne computer operator Alexander Belkin has become the first Australian to be convicted under new computer trespass laws.

Belkin was fined A\$750 for copying the code of an accounting system. The system, owned by his employer GNA Computing, was valued at \$1.5 million.

Magistrate Heather Spooner rejected defence claims that criminal intent should be proved. The legislation was introduced to curb 'intellectual voyeurism', she said. (Newsbytes)

Good guide

Hot from the presses this week is the 1990 Good Software Guide. This guide to PC software covers all areas including accounts, word processing and statistics. It costs £19.95 for the paperback.

More information from publisher Absolute Research on 0923 56043.

COMMENT

Commodore targets the youngsters, but is the Amiga the right thing for 8-year-olds? Meanwhile Atari comes under fire for using pirated software...

Commodore's proposed initiative of bundling the Amiga with education software for the under-11s provides food for thought.

There is a strand of opinion which sees the targeting of the parents of young children as being on the borderline of emotional intimidation. Certain door-to-door sellers of encyclopaedias know all too well the relative ease with which their products can be thrust at new families by playing on parents' fears about what they perceive as the declining quality of the education system (and this applies whatever political party is in government).

Why lash out £500 at this stage, say proponents of this viewpoint, when you can keep the little darlings happy with a much cheaper Speccy and a Peter Beardsley PVC football?

POSITIVE

A more positive (though perhaps no less cynical) view is that the kids will be whingeing about wanting one of those computers advertised on TV in the three-month period leading up to every Christmas and birthday after the age of 11 anyway. Why not get buying the thing over and done with at an earlier stage?

That way, you have use of the machine now, you can take the opportunity while the offspring are at a more malleable age of stressing the less frivolous side of having a computer in the home, and perhaps train your children into the idea that mummy is prepared to buy educationally useful software, but if little Jimmy and Jenny want to zap bogies they can save up for the games out of their pocket money.

It would be nice to think that Commodore has identified a real need among both parents and kids, and that

the bundle, when eventually launched, will prove the existence of the market through a high percentage of delighted buyers. Only time, as ever, will tell. Meanwhile, readers with views on the subject are welcome to air them in Express Mail.

WHOOOPS ATARI

What is one to make of Atari's Far Eastern outpost of empire being busted for software piracy?

For one thing, you may take the squeals of the company's top brass with a pinch of proverbial salt. These are the same hollow howls of rage of the motorist nicked for obstruction who demands to know why the police are not doing something more useful like arresting burglars. Pointing the finger elsewhere does not nullify the offence you have been caught at.

We would not suggest for a moment that Atari's higher echelons had even the slightest knowledge of the alleged piracy, let alone contrived in it, but the case does serve as a salutary reminder that it is a firm's management who ultimately carry the can for their wayward staff in such matters.

It also serves as a timely chance for us to remind concerned UK companies about the Federation Against Software Theft's corporate self-audit kit for checking that your employees are not potentially landing you in it by stacking their machines with illegal goodies.

The PC version of the SPA's complementary (and indeed complimentary) auditing software is due in at FAST in the next couple of weeks, with a Mac version to follow in July or August.

Act now, and avoid the red faces currently being sported by others less fortunate than yourself. ■

FROM The ARCHIVE

ONE YEAR AGO

MP Emma Nicholson told Express of her plans to outlaw hacking and outlined the stiff penalties she wanted to impose. "I have suggested that a bad case of hacking should carry a 10 year jail sentence," she said. Little comfort for the 13 people arrested in the last couple of weeks for computer crime.

CRL launched its tasteless horror game, *Jack the Ripper*. The Ripper game was a text/graphic adventure 'enhanced' by digitised screens of mutilated and dead women. Instead of standing back in amazement, the media uproar about this tasteless tribute was a yawn.

Alan Sugar lost £37 million in one day when the stock market kicked Amstrad in the infrastructure to the tune of £120m. Alan Sugar looked a little pensive but like all true entrepreneurs has weathered the storm.

A survey by market analysts Intelligent Electronics/Dataquest said that the computer-buying trend in the UK was on the increase with figures for 1988 up 50 per cent on 1987. A total of 778,000 personal computers sold in 1988 compared to 552,350 in 1987.

US Gold announced a budget 16-bit label for ST, Amiga and PC. The label, called Klassix, blasted off with *Out Run* and *World Class Leaderboard*.

Information Technologies, a small Silicon Valley company, challenged chip giant Intel with two number crunching processors. The IC-2C87 and IT387

were fully compatible with the Intel 80287 and 80387. No war followed and both companies still have their appropriately sized niche.

TWO YEARS AGO

Remember the long hot summer of 1988? Atari's crew were rolling up their sleeves and tempting us out of the sun with the ST Summer Pack. The £399 STFM was bundled with £413.94 worth of software and closely followed Atari's £100 price rise. The rise was caused by the shortage of DRAM chips and their consequent escalation in price.



High Street chain Curry's dropped 'leisure' computers for the summer claiming that poor summer sales made the computer market seasonal. Computers would be back in autumn they said.

A disk transfer utility from Amstrad called Linkmaster became the knight in shining armour to those PC owners suffering with double disk drive standards. Linkmaster was a package for transferring software from the 3.5-inch discs of a PPC to the 5.25-inch discs of a PC 1512/1640.

FIVE YEARS AGO

Private detective Bill Dolightly saved Pegasus Software £8,000 by investigating unscrupulous dealers who had been counterfeiting demo tapes and selling trade samples.

TEN YEARS AGO

Computer artist Tom Longson who won a fellowship to the US said of a Computer Art Society: "To label an activity as computer art is as nonsensical as setting up a society for oil painting art."

Sources: New Computer Express, MicroScope, Computer Trade Weekly

NEW
COMPUTER
EXPRESS

EDITOR • Martyn Lester
FEATURES EDITOR • Andy Storer
NEWS EDITOR • Colin Campbell
STAFF WRITER • Keith Pomfret
ART EDITOR • Julia O'Shea
PRODUCTION EDITOR • Stuart Anderton
DEPUTY PRODUCTION EDITOR • Ben Feinbaum
ART ASSISTANT • Amanda Cook
CONTRIBUTORS:

Rob Ainsley • Jerry Glenwright • Maff Evans
Steve Carey • Simon Williams • Robin Alway
Andrew Brown • Keith Neal • Jason Holborn
Bertram Carrol • Rod Lawton • John Toroflex
Pete Gerrard • Mark Higham • Sally Newman

ADVERTISEMENT MANAGER • Mark Salmon
DEPUTY AD MANAGER • Adrian Taylor
AD EXECUTIVES • Simon Moss • Helen Kirkhope
AD ADMINISTRATION • James Leach
AD PRODUCTION • Frances Wasem
AD TYPESETTING • Terry Turner

ASSISTANT PUBLISHER • Jane Nolan
PUBLISHER • Greg Ingham

We regret we cannot enter into any personal correspondence or answer telephone queries. Technical enquiries should be addressed to Tech Tips at the address below.

ABC audited circulation July-December 1989: 22,277 copies per week

Future Publishing Ltd • 30 Monmouth Street, Bath BA1 2AP • Tel: 0225 442244 • Fax: 0225 446019 • Subscriptions: The Old Barn, Somerton, Somerset (0458) 74011

• Printed by Redwood Press, Melksham, Wilts
• Distributed by Comag, West Drayton, Middx

While every care is taken in the preparation of New Computer Express, Future Publishing cannot be held responsible for the consequences of any errors that may occur.



CPC

LEARNING SOMETHING NEW

Even though Acorn's trusty (rusty) old BBC is still top dog in the educational market, the CPC is gaining strength as an educational machine. Latest newcomer on the scene is Prisma Software, with its new *Learn to Read with Prof* packages.

Prisma has actually been producing educational software for the CPC since 1984, but until now the company has sold only in schools. Now, though, it aims to reach a wider audience.

Learn to Read with Prof is slightly different to run-of-the-mill educational packages, as the software forms only part of a learning schedule which includes audio tapes and books - the CPC goes multimedia! The *Prof* range actually encompasses 12 different packs. There are four parts, with three levels to each.

For example, Part 1, Level 1 is called *Prof Plays a New Game*, and is aimed at 4 to 9 year-olds. In it, children listen first to a story on an audio tape which introduces characters and ideas, then play a series of games on the CPC which teaches them how to recognise and spell lots of new words.

After that, there are five books to read, all containing words taught by the computer. The tape, software and books are all included for the asking price of £19.99, and the packs will be available in certain High Street shops such as Boots.

If you want to find out more you can write to Prisma at Prisma House, PO Box 211, Chester CH1 3NJ, or call 0244 326244.

PUBLIC ANNOUNCEMENT

"Dear, nice, kind Mr Lawton (Sir)" this letter starts, "I feel it is time for me to beg." OK, Mr Alan Scully of Glasgow, beg away...

"I run a cassette-based PD library for the Amstrad CPC. I have wrote to (sic) *New Computer Express* with over 10 classified adverts and I have not had a mention yet.

"You are my last chance. I have over 140 programs in my library, and add about 20 a month, but nobody knows I exist (except for the 100 or so readers of *Print-Out* fanzine). Please, please, please give me a mention in your CPC column in *Express*.

"One of the good points about my PD library is that software is supplied on cassette. You have already mentioned BASIC Plus by David Wild, previously only available on disk.

"Well, now it is in my PD library - so cassette users have access to it too. I also have *Pedit*, *Clock*, *Pilot CPC*, Hacker's BASIC, *Forms Library*, *Graphics Library* and more from David Wild's PD range available on cassette for the first time.

"Add to this loads of games, applications software (including a database, an assembler and more), serious software, programming tools, educational software, AI software, graphics programs and a mega-cheap, giveaway price (from as little as 25p + SAE + cassette per selection).

"Interested readers can get a current stock list by sending an SAE or can receive a starter pack for only 25p, an

SAE and a blank cassette. The address is CPD, 119 Laurel Drive, Greenhills, East Kilbride, Glasgow G75 9JG.

"Please give me a mention - would it help if I got down on my knees? Yours grovellingly with admiration and respect etc, etc, etc."

Ee lad, yer'll go far.

SPRING SURPRISE!

Spring and summer are the traditionally quiet times for the software industry. I mean, once all the Christmas latecomers are out of the way, the whole show grinds to a halt until the end of the year again. Isn't that right?

It's right if you've got your head stuck in the sand. On the other hand, anyone who went to the European Computer Trade Show would have got quite a different impression.

For example, apart from the World Cup sims heading our way, Ocean has landed some hot arcade licences. *Shadow Warriors*, for example, was real big in the arcades last year, and is set to make its debut on the CPC soon, while the ultimate beat-'em-up - *The Champ* - is on its way from Linet.

The *Champ* even has the official backing of the WBC! Domark's *Klax* - a souped-up Tetris with knobs on - is also now imminent, but for outdoor types, French company Simarils' *Windsurf Willy* (I've heard of Sunburned Willy, but that's another story) should be in the shops about the same time as the sun-tan oil.

Activision is busy too, with more releases than you could shake a stick at, and Accolade is on the verge of turning out *The Cycles*, a high-powered motorcycle racing sim. The list just goes on and on. Roll on summer!

CHEATING BONANZA

The moment inveterate cheaters have been waiting for draws near. It's true - *Cheat Mode II - The Revenge* is, even as we speak, rolling off the Future Publishing presses.

The *crème de la crème* of Amstrad Action's Cheat Mode section for the past three years has been levered, pushed and otherwise crammed into a bulging 130-page volume of pokes, tips, hints, listings and passwords. And all yours for a mere £9.99! To get the full story and an order form, check out the next current issue of *Amstrad Action*.

Me? Oh, I've already got my advance copy. Rank, you know, hath its little privileges.

EAGLE CHEAT

Sick of getting trashed in that golden oldie *Into the Eagles Nest*? I know I am. Which is why these little cheats from Ben Owen, Dan Irving, Andy Price and Peter Tilcock are so handy.

For example, typing DAS CHT into the high score table gives you infinite energy. And to get map mode, all you have to do is type DAS MAP.

Best of all in my humble opinion is typing DAS NME, which lets you play without enemies. Trouble is, I still get trashed. But, then you didn't want to know about me, did you?

Rod Lawton



BBC

ROLLING

"Let the Good times roll..." was one of the most famous advertising slogans of the 70s. Used to refer to Kawasaki motorcycles, it conjured up images of freedom and power there for the taking.

Could Acorn now be in a position to re-use that slogan? The signs are favourable - profitability has returned to stay, prices are low and it seems that the company has, at last, got its marketing act together.

Latest news is the signing of a distribution agreement with a company called ZCL.

You will almost certainly have never heard of the good people, but ZCL has just made PLC status and it supports a network of a thousand dealers already. The company also supplies machines to many High Street retailers - so over the next year public visibility of Acorn machines is bound to grow.

Further, Acorn is attempting to broaden its sales appeal, and break out from being classified as the computer of the educational market.

COMMAND RUBBISH

*MOVE was described to me recently as the 'worst documented command for the Master 128 ever'.

To put you out of your misery, it gives you the ability to copy files from one filing system to another; cassette to disc, ADFS, Econet and so on.

All you get given on page 195 of the *Welcome Guide* is just that, plus a single example. This is hopeless, considering that *MOVE could save your bacon if you know how to use it.

Normally, I would use the commands in the excellent ADU (*Advanced Disk Utilities ROM*) for this task, but in this case it was unavailable, so I was stuck with *MOVE.

I found out that you need to pre-select both destination and source. For example, to copy from DFS on drive 0 to ADFS on drive 1 you should perform the following operations:-

- 1 Change to ADFS, insert the destination ADFS disk in drive 1 and *MOUNT.
- 2 Return to DFS with *DISC (not CTRL-BREAK) and insert the disk containing the files to be copied into drive 0.
- 3 Then type the string *MOVE-DISC-EXTILR-ADFS-NEWFILE

You will see that *MOVE really needs two disk drives to work properly. Certainly I got no response when I tried to specify both source and destination on the same drive.

HYBRIDISE

Just when I'd given up on it, Hybrid Technology finally came up with the goods in the shape of a Music 5000 Universal system.

Or rather not, because the Universal software isn't finished yet, so what I got was the standard 5000 system.

However, I was really pleased to see the unit, which is, as advertised, a solidly-made piece of kit. I won't yet pass comment on the system as a whole in this mini-preview, but I will say that it has a protection system sitting in the software, which is very strange, especially given the hardware-based nature of the Music 5000.

Andrew Brown

YOUR FORMAT

CPC	9
BBC	9
Spectrum	10
SAM Coupé	10
PCW	10
MSX	10
QL	11
Atari XE	11
Archimedes	11
C64	11
Amiga	12
PC	14
ST	16

SPECTRUM

IT'S ENIGMATIC

The talented programmers behind the much acclaimed magnetic magazine *Enigma* have decided to turn their hex loaders, machine code disassemblers and other similarly complicated technical things I know nothing about, to a game. And a rather spiffing one it is too.

Hyperlane is a horizontally-scrolling shoot-'em-up which is straightforward in that it scrolls horizontally and expects you to shoot countless swirling, weaving swarms of aliens.

In keeping with tradition, your craft starts out weak, slow and Reliant-Robin-like but by successfully downing all the aliens in each wave, you can upgrade your weapons and get the space ship equivalents of furry dice and go-faster stripes on your side.

What *Hyperlane* lacks in originality it makes up for with compulsive game-play, fine looking graphics, an excellent soundtrack and, best of all, absolutely huge red and yellow explosions that splatter the screen when anything is hit.

It's easily as well programmed and presented as a good professional budget game, but more addictive than most and, if you're after an uninhibited shoot-'em-up where the holds aren't in the least bit barred, this is well worth the £2.99 price of admission.

Copies of *Hyperlane* are available, mail-order only, from ESD, 15 Westfield Road, Inverurie, Aberdeenshire AB5 9YR. Oh yes, and it's fully-compatible with all Speccys and the Coupé.

MORE FANZ

It's good to see the Spectrum fanzine has undergone a bit of revival recently with quite a few new publications rolling off the photocopier/cassette recorder aimed specifically at we Speccy owners.

The latest independent title I've been sent devotes itself entirely to the Plus 3-owning community. Coming on 3-inch disk rather than paper or cassette it is called *Crusade*.

Included in Issue One, among the

usual mix of reviews, news, previews and tips, is a feature on computers in schools, a programming section, a trivia game and database to catalogue your software collection.

Presentation is a bit uninspired and there are a few annoying delays you don't expect from a disk-based mag, as well as loads of spelling mistakes, but all in all it's a promising first issue. It is also good value at £3.50. Contact Jade Software, 17 Dudley Crescent, Illingworth, Halifax HX2 8LD.

IN A NUMBER

Here's a number that looks like it should be in every Speccy modem owner's little black book: 0226 340425 (24 hours).

This series of digits is what you dial to get through to the Phantom Viewdata bulletin board which, according to its sysop Keith Burton, includes a Spectrum section called Boom at absolutely no extra charge.

This on-line fanzine is written and tirelessly updated by Jason Harrison and Antony Purvis, and it offers free programs for you to download among as well as lots of other stuff.

Unfortunately, I'm too old fashioned and too poor to own a modem, but please don't let that spoil your fun.

POKE A DOT

Here's another poke from that generous-spirited Miktor.

To get infinite lives in Codemaster's *Prince Clumsy* simply do the following: 1) Enter the listing, 2) Save it to tape if you think you'll need its help again in the future, 3) Type Run and 4) Start your tape from the beginning. Not forgetting 5) Say 'Thank you very much' to the wonderful, but horribly-named Miktor.

```
10 REM PRINCE CLUMSY INFINITE LIVES
20 CLEAR 25000: LOAD "" CODE
30 RANDOMIZE USR 55296
40 POKE 47062,55
50 RANDOMIZE USR 43918
```

Robin Alway

SAM COUPÉ

COMPETITION

The overwhelmingly-abundant generosity shown by MGT recently with its £20,000 prize offering for the best Coupé software (see *Express* 71 for full details), has inspired me towards an urge to give things away.

Luckily it's not giving away on the same scale as MGT, but here's a competition for you to enter anyway.

To win a mystery piece of Coupé software (ie I haven't got a clue what it's going to be yet) just answer this rather easy question: Who was it that wrote SAM's BASIC?

Once you've finished laughing at the simplicity of that question, scribble the answer down and send it to me at the address below.

Closing date is four weeks from the day this issue goes on sale - that is, May 24.

FARMING THE PATCH

Tips and feedback of a Coupé-esque nature are made to feel very welcome at the address below, so if you've discovered any useful game or programming pokes or just general SAM-using wrinkles, send them in my direction without delay. Bountiful(ish) software prizes could be your reward.

I'm also keen to plug Coupé fanzines, user groups, public domain libraries and other worthwhile enterprises. Finally, software houses who want to keep the legion of SAM users informed with updates on Coupé-compatible software, should send everything to me immediately. Heave your letters to: Robin Alway, *Express*, 30 Monmouth Street, Bath BA1 1EJ. Hand-crafted replies are available in return for an SAE and lots of patience.

Robin Alway

PCW

FUTURE SHOCK

Predicting the future is tricky. Many believe that Nostradamus prophesied that the world will end in 1999, though this is only an interpretation.

He never gave any dates for his predictions, saying that true followers don't need to know the dates anyway. On the other hand, many people say the world actually ended on May 4, 1979, but that we were too busy to notice.

Anyway, Mr J Hewins of Surrey asks me what I think of 'money-making' prediction software such as horse racing and pools programs.

Well, as you'd expect, there's nothing magic about the programs: all they do is a lot of number crunching for you, working out (usually quite accurately) whether or not something is a good bet based on past performance.

Particularly for horse racing programs, this entails a lot of data input. You may spend an hour typing in form details for a race, only to be told that none of the horses are worth a bet on this occasion, on balance!

I think these programs are best viewed as an aid to the professional, or as a bit of fun - but don't expect to recoup the outlay on the program without some investment of time and money.

Intraset does a pools predictor, *Poolsmaster*, for £19.95. I tried this in its previous incarnation of *Pools Predictor* and found it easy to use and certainly much more accurate than a pin, though I didn't win anything in the month trial period! Intraset also does a horse racing program, *Coursemaster*, for £19.95. Reach them on 02572 76800.

DOUBLE VISION I

You can get a double underlining effect in *LocoScript* by using the = signs and a bit of cunning.

Before the headline put [+] LP 8 [ENTER]. Type the headline and [RETURN]. Then type as many = signs as letters in the headline. End the line with [+] LS 0 [ENTER] [RETURN].

Make the next line start with [+] P 17 [ENTER], then a space, then [-] P. Then type as many = signs as in the headline, less one. Finish with [-] LS [-] LP [RETURN] and carry on as normal.

DOUBLE VISION II

In *Protext* you can get double underlining as follows. Type the headline, underlined as normal, but before it put the command >OC 27,65,3 (as a line on its own). Make the next line the stored command >OC 27,50. Make the next line consist of underlined spaces to the width of the headline. Then go ahead and carry on as normal.

BOOK LOOK

Two new beginners' books on *LocoScript* are just out, and first impressions are good.

They're both what-to-do and what-to-press guides which should be invaluable even to the complete beginner. *Your Friendly Amstrad* (8256, 8512) is £9.95 and *Learning to Love Your Amstrad* (9512) is £10.95.

Both books are from that perennial favourite known as Pandor House. Reach the good people on 01-979 3060.

Rob Ainsley

MSX

MORE THAN SOFT

K-Soft Computers is a company that seems very keen on supporting the MSX user, this assumption being based on the amount of mail that I receive from the good people there.

Not only does it have a selection of Konix joysticks for sale, the K-Soft list also includes an MSX Mouse for £36.25 and a Sony Data Recorder for £24.99. If the photo of the mouse is anything to go by, it looks a well-made contraption.

Do remember, though, if you purchase a mouse, you need software that is compatible with this type of input device, eg *The Cheese Graphics* software from NEOS.

Two items that might be of interest to those who are already using a mouse are a mouse pad for £5.85 and a device called a Magic Stage, which is a platform that fits over your keyboard and makes a firm, flat surface for your mouse to operate on.

In my opinion mouse pads are worth every penny because they are easy to keep clean, and in the two years I have owned my NEOS mouse I have not yet had to clean the ball.

You can contact K-Soft at 1 Stanley Road, Retford, Notts DN22 7AE. Do not forget the SAE.

LETTER RESPONSE

I had a letter from Ian Steels of Westwood, Peterborough, and he asks why, when he sees adverts in magazines, no mention is made of a version for the MSX user, but a few weeks later an MSX version might be released.

This has happened with games from Ocean, Grandlam, Melbourne House, etc. Are the companies ashamed of admitting that they support the MSX?

The reason for this anonymity is, I think, mainly because these games are really produced for export, and are only released here because the costs have been re-couped from continental sales.

Also some companies are very cagey about what is to be released in case it never happens, as is the case with Anco's *Rally Cross Challenge*, which was advertised, coded and never found release.

There is some good news for Ian, though as he also asks if *Space Harrier* is to be released on the MSX format, and I can inform him, and everyone else, that it should be available any time now.

The last item Ian asks about is what the expansion port on his Sanyo is for. I presume he means the cartridge slot, and can only further assume that he obviously hasn't used cartridge-based software on his machine, because this is where you stick it.

This port is extremely versatile in that virtually all types of peripherals can be interfaced here: ROM, RAM, modems, digitisers, MIDI interfaces and, even, Yamaha's SFG01/05 synth cartridge can be slotted in using a simple adapter.

This is also the place in which you would slot your disk interface if you purchased an MSX disk drive.

Hopefully Ian will now realise that he is under-using his computer, and he will now rush out to find out more from his local shop.

Keith Neal

➤ C64

MODERN TECHNOLOGY

Newcomers to the world of computing and teletext might like to turn to Channel 4's 4-Tel service and check out page 568. This is usually updated every day, and contains five or six pages of computer news and information.

Obviously it isn't all about the Commodore 64, but there's quite often a mention for our friendly computer. This is in marked contrast to the BBC's Ceefax service, which doesn't seem to know what a computer is, and is so slow at finding anything, that one can't help but wonder if it's all being driven by a ZX81, in BASIC.

CRYSTAL UNICORN

What have Status Quo, The Blitter End, Gorgon's Crystal and Pegasus got in common? They were all potential names for Crystal Unicorn, an interesting computer club whose magazine is known as Crystal News.

It would appear that a liking for Jeff Minter is the order of the day (and why not, as BN might say), as well as a fondness for things hip and cool.

All that notwithstanding, the magazine is a goldmine of news and views, facts and figures, public domain disks, repair services, hints and tips, and just about anything connected with the Commodore 64/128 and, it must be said, the Amiga. Details for joining the club don't appear to be mentioned anywhere,

but, as there is so much to read, it would be easy to miss them.

However, I can tell you that the editor of the magazine is one Dave E Mason, who can be found at Ethorpe Hotel, Gerrards Cross, Buckinghamshire SL9 8HY, so send him an SAE for further information and he'll oblige.

WHO ME? CHEAT? AS IF!

Herewith is a collection of little cheats culled from the aforementioned Crystal Unicorn, to give you some idea of its worth. None require cartridges, POKEs, or SYS calls, just great ingenuity on the part of the people who discovered them.

On *Indiana Jones and the Last Crusade* (again) hold down Fish and press 1-4 for the level. On *Nemesis*, hold down Shift and press Space five times to activate cheat mode.

On *Arkanoïd II*, type Cheetah on the high score table for infinite lives. On *Netherworld*, press 24E to finish a level. On *Fernandez Must Die*, type Spinyornman for infinite lives. And last, but certainly not least, on *BMX Kidz* type Vivaldi followed by A to F to select your level. I told you there was some good stuff in that magazine!

DISK ADVENTURE

Three disks, each containing three text adventures for the Commodore 64, are now available from J A Lockerby, 44 Hyde Place, Aylesham, Canterbury, Kent CT3 3AL. The disks cost £4.50 each, and are all conversions of Spectrum adventures that Jack originally wrote for the Spectrum.

Pete Gerrard

➤ QL

MAXWELL MAKES MOVE

Mega-tycoon Robert Maxwell has bought all the computer-related titles, including *Sinclair QL World*, from Focus Investments, which went into receivership a few weeks ago.

Maxwell nearly got involved with the QL once before, when it was announced that he was purchasing Sinclair Research. The deal fell through and Sinclair was eventually taken over by those people at Amstrad.

I hope that *Sinclair QL World* will continue to be published. Anything that helps to keep up interest in the QL has to be a good thing.

NEW FROM DILWYN JONES

Dilwyn Jones, author of the popular *Page Designer* program sold by Sector Software, has branched out on his own with three new titles: *BASIC Reporter*, *Wordscheck* and *Vision Mixer*. I'll be reviewing them in this column, commencing with *Wordscheck*.

Wordscheck counts the number of words in a text file (a Quill document file or an ASCII file). Small files are loaded into memory for speed, and large files are dealt with on disk, which obviously slows things down considerably.

When the file has been processed, the results can be displayed on the screen, output to a file, or sent to a printer. Output can be sorted, if required, in word order. Output options

can be selected, so that only words longer than six characters are included, or words occurring more than a total of five times.

Wordscheck was written in Super-BASIC, compiled with Turbo, was very easy to use, and had good error trapping. Documentation is in the form of a Quill file. I found the program somewhat slow with largish files, even though they were processed in memory.

Once the list of words has been generated, and sent to a file, it can be used to produce indices, vocabularies and the like. Simple BASIC programs could be used for further analyses.

Wordscheck is a rather specialised utility, but many people could find use for it, and it is excellent value at £6. Available from Dilwyn Jones Computing, 41 Bro Emrys, Taly-bont, Bangor, Gwynedd LL57 3YT.

Jones is looking for authors with programs of their own, or who might also be interested in developing some of his ideas.

NEW BULLETIN BOARDS

Ron Dunnott of Braintree, Essex, has set up QUBBE (QL Users Bulletin Board in Essex). This is a 24-hour viewdata-type (1200/75) BBS on 0376 47852 and uses the ring-back system.

In Bristol, Dave Fullerton has set up QBUG, a 24-hour BBS running on a QL with a 40Mb Miracle hard disk. The number is 0272 666187.

Special interest sections include areas for Quanta, adventures, and the Bristol users group.

John Torofex

➤ XE

AUTOMATED MAILING

Do you run a stamp club, sports team or computer society? Do you keep lists of members on disk to which you must periodically send subscription reminders, fanzines and other mail? Then *Mailing List* is for you.

There's nothing worse than being faced with a list of 60 club members when its time to send out the subscription reminder letters. Each name and address must be typed into the circular letter you've prepared using *AtariWriter*, bunged into an envelope, stamped and posted. But what if you could prepare just one letter containing a wildcard name field and have the names and address automatically lifted off your database and inserted into the letter?

Such a system would be heaven sent, wouldn't it? Well, *Mailing List* performs all of these actions and more.

Inform the program of the whereabouts of your addresses and names and it will use the information along with a word processor to produce circular letters quickly and easily.

Mailing List also features its own list maker so can use the program as a simple database storing menus, Christmas card lists, records, tapes and so on. Data can be sorted alphabetically or numerically and the program can use a variety of different printers including dot-matrix and daisywheel machines.

Perfect for those with busy clubs to run, *Mailing List* costs just £9.95 and can be had from Silica Shop (01-580 4839) and other good 8-bit suppliers.

Edmund Blake

➤ ARCHIMEDES

ACORN PRICE CUTS

What a good move on Acorn's part to cut prices, though *Express*'s assessment that an A3000 is now only £100 more than an ST 1040 is a bit optimistic. The ST 1040 price of £499 includes a heap of free software and VAT. The A3000 price includes no bundled applications – though a case could be made for *!Draw*, *!Paint* and *!Edit* – and no VAT.

Nonetheless, let's not be churlish about this. It will give the low-end market a well-needed boost and should increase the popularity of the Arc as a home machine considerably.

There are signs on the software front that the market is on the upturn, too. Although we've yet to see any of the big league games companies releasing Arc versions, there are some solid business products now available for the Arc. Price reductions on the 400 series should do still more to encourage development in this area.

IMPRESSION POINTS

Chris Eason seems to have ego problems (*Express Mail*, 75). Yes, there was a time when I could quote every *FX number on the BBC and its action, but in the end I grew out of it.

The Arc tries to dispense with that kind of in-depth knowledge and I'd take a bet that many of the things I'm still learning about the machine, other readers are, too.

As to Chris's comments about *Impression*, I made no suggestion about

the longwindedness of its style sheets – its use of single-aspect styles is indeed less cumbersome than some, but still not handy enough for quick, one-off documents, where you just want to enlarge a line of text or italicise it.

The whole idea behind RISCOS is to be able to run two or more applications at the same time.

With an *Impression* document open, you'll find it very hard to run, say *!Draw*, alongside it on a 1Mb Arc. Without that facility, you might as well be running on, say, an ST, as you you'll have to exit the DTP to load up any other application.

With 2Mb or more, you can switch between the two and manipulate a graphic ready for direct import into the *Impression* document.

Impression is a good DTP, as I believe came out from the review, and it's certainly more usable than Acorn's own package.

However, it's not reasonable to say you can use it for serious work on a 1Mb Arc, if you want to make use of the multi-tasking aspects of the machine, that is.

TOROFEX REPLY

At the risk of self-indulgence – columnist to columnist – John Torofex is obviously feeling the pinch if he needs to fill his QL column in *Express* with digs at other machines – the Arc in this case.

I will try to be brief in response. The ARM chipset is being second-sourced by Sanyo, who is developing machines of its own using the chipset, and there are

at least two California hardware companies producing specialist graphics processor cards with the ARM.

That's at least three more companies than are currently using the 68008 processor.

There may currently be more applications for the QL than the Arc – though I doubt it – but I'm certain that there will be more available for the Arc eight years after its release than there are now for the QL. So there.

MAC EMULATOR?

Various rumours are floating around about a possible Mac emulator for the Arc. Sound good?

The device would be a hardware-based emulation, possibly running through a specialist 'tube' module, giving the Arc the facility to run in cahoots with another processor housed on what would be a separate card.

If this proves possible, there's no reason why Mac applications couldn't be multi-tasked with Arc ones. And wouldn't that be fine?

Additionally, the possibility of a 68000 series second processor could open up a lot of sales.

Apart from the problems of obtaining Mac ROMs to run it with, the chance to run Mac software on the Arc would increase the machine's penetration into several niche markets.

And how about an Amiga emulator on the same processor board? And how about a QL emulator?

Bertrum Carrot



GOLD DISK LATEST

Gold Disk, that Canadian purveyor of desktop productivity software for the Amiga, is soon to unleash several new products onto the largely unsuspecting, but potentially grateful Amiga public.

First up is *ShowMaker*, a powerful multimedia presentation generator that lets anyone build continuous, self-running presentations incorporating internally- or externally-produced text, images, computer graphics, animations, music, video and audio (sounds impressive so far).

Due to the Amiga's growing dominance of the low end multimedia market, *ShowMaker* was designed to allow any Amiga user to visualise and construct 'shows' containing both Amiga and external source material.

ShowMaker lets you use your Amiga to manipulate and establish communication with literally any external device you want - ranging from Laserdisc players to MIDI keyboards. *ShowMaker* will also preview and print storyboards and/or queue sheets of your presentation.

Furthermore, *ShowMaker* comes with a special facility that gives you very

accurate control of a presentation's timing, therefore allowing you to synchronise video and audio.

Also due for release soon from Gold Disk is the *Outline Fonts* package, which consists of over 35 professional AGFA/Compugraphic outline fonts for use within Gold Disk's desktop publishing packages, *Professional Page*, *PageSetter II* and *ProDraw* (version 1 and 2).

If rumours prove correct, the new release of the Amiga operating system will include direct support for Compugraphic fonts, thereby extending their currently limited use.

CARTRIDGES ARE GO!

Thanks to those nice chaps at the Software Business, I've just been able to lay my hands on the first of many utility cartridges soon to appear on the Amiga. Within the next couple of months, you can expect the Amiga marketplace to be flooded with these little beauties.

The Nordic Cartridge is a powerful little widget that plugs into the expansion slot along the left hand side of the Amiga 500. The board can also be used with both the A1000 and A2000, although fitting becomes more involved.

Unlike other devices, the Nordic cartridge is completely hardware-based, thereby avoiding the hassles of having to load driver software from disk. With the Nordic cartridge, just plug it in, switch it on and you're up and running immediately.

'It'll be out of date in no time', I hear you shout. Not so, as the Danish producers intend making regular upgrades which will consist of replacement ROMs.

Its many features include a powerful program freezer that will allow you to break into just about any game with a press of a button. Once inside, you can examine the innards of your Amiga with the Nordic Cartridge's power machine

code monitor. Areas of memory can be disassembled, lines changed, memory dumped and much more besides. With just a single command, you can modify any of the custom chip registers in your Amiga with ease.

Ever fancied giving your games that professional look by half inchin' graphics from commercial software? Well so, then the Nordic Cartridge could be just what you've been looking for.

By manipulating bitplane pointers, screens can be ripped (illegally, mind you - Ed) from virtually any program and saved out to disk as an IFF compatible picture file. Once they're safely saved to disk, load up *DPaint* and edit them to your heart's content.

Sampling freaks will love Nordic's sample ripper. Just press the button on the cartridge, select the appropriate function key and you're into the sample ripper module. From here you can scan chip memory for any samples and then save them out to disk for further editing within packages such as *AudioMaster II*.

Other features include a training mode option (which can be used to slow

down games), cheat mode search utility, slide show maker and memory packer. For more info, contact the Software Business on 0480 495605.

SNIPPETS...

• Now that the famous Amiga A1500 kit has finally started shipping, Checkmate Digital is hard at work on a range of earth-shattering new products for the world's best machine - the Amiga. I've been sworn to secrecy on most, but I can exclusively reveal that one of the projects currently being worked on is a 16-bit sound sampler card for use within the A1500 and B2000.

This little wonder isn't due for quite a long time, so don't go phoning the busy chaps at Checkmate for a while yet. Rest assured that I'll keep you informed about any future developments.

• Look out in next week's *Express* for a full review of both Microdeal's long awaited Amiga *Quartet* and Solid State Leisure's Amiga budget 68020 card, the 20-CARD.

Jason Holborn

SHARE AND ENJOY

PD software is one of the real bargains within the massive computer industry. For nothing more than the price of a disk, you can have almost a full megabyte of what is often near-commercial quality software.

Branching off from what was initially a damned good idea, PD authors have come up with several different variations on the theme including the infamous shareware. The theory behind shareware was simple - you obtained the disk from the normal PD sources and if the program proved to be useful, then you were morally obliged to send a donation to the author to encourage them to develop more software. Of course human nature being what it is, shareware never really proved to be much of a success in this country.

Edit sleepy pointer



Working on the theory of shareware comes charityware, a new idea from computer journalist and programmer, Mark Smiddy. Under the new system, instead of sending a donation to the programmer (Mark's rich enough already), you are requested to send a donation to your favourite charity.

Mark, who writes for several Amiga journals (including our sister magazine, *Amiga Format*), has released *Sleepy*, the first title to appear under the CharityWare system.

Version 3 of *Sleepy* allows Amiga users to redesign the Workbench 'snooze' bubble. The new pointer - which can be up to three times the height of the original - has its own set of colours and can be animated with up to 20 images.

It is compatible with most Amiga applications including *Devpac*, *Analyze*, *Organise* and *Deluxe Paint*. Although the system is supplied with a versatile editor, the IFF-compatible image files can be created in most Amiga art packages.

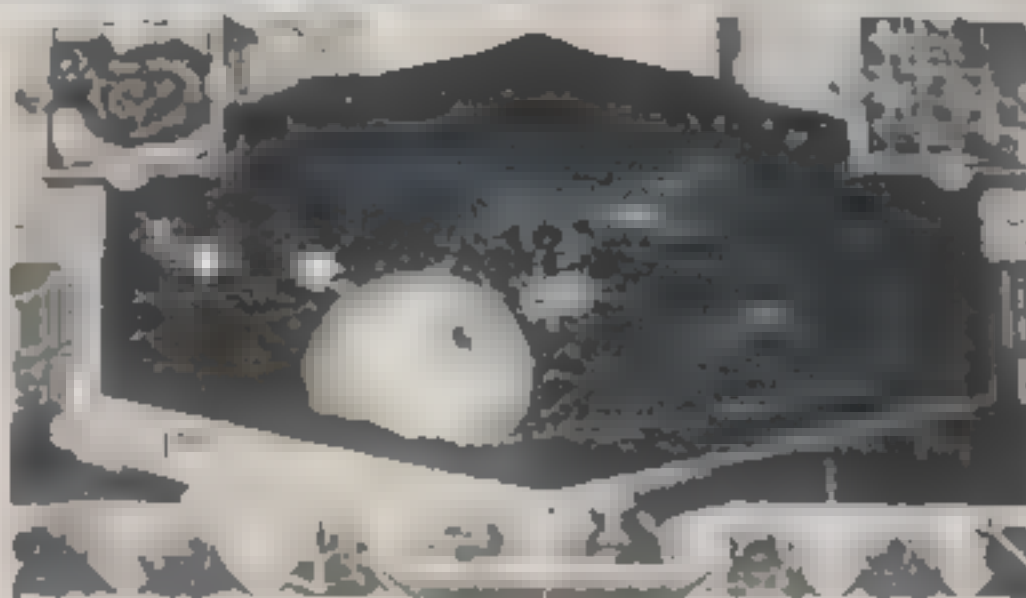
AMIGA GAME WEEK GRAVITY

Mirrorsoft • £24.95

Not content with releasing the strange 3D game *Interphase*, Mirrorsoft has come up with an even weirder product. *Gravity* is set far off in the 24th Century, in a time when science has discovered a way of using black holes to travel between distant stars. (I told you it was weird.)

Colonists and exploration teams travel around the depths of space by turning uninhabited planets into black holes, some with permission and some without. You play an adventurer whose task it is to colonise planets and hassle 'Outies' (rogue colonists) that cause any trouble.

The game is played through a series of control screens, the main view being a isometric



representation of space. The grid shows relative movement of all the objects in local space, the slopes indicating the magnetic pull around your ship.

You control one of a fleet of eight ships in a series of missions, including exploration trips, terraforming (making planets habitable) and military sorties.

The Outies cause a few problems, but you have a set of drones which can be programmed to take on and deal with rogue craft.

This may seem a little complicated, but it isn't - it's extremely complicated! The game's plot is very involved

and will take a lot of planning and thought before any significant goals are reached, but instead of turning the player away in despair, the depth of the game draws you further into this believable and complex futuristic environment.

The graphics are superbly designed, looking both classy and functional (a rare feat) and go to heighten the atmosphere of an involved space mission.

If you like simple blasting games, then don't bother. If on the other hand you like the old grey matter to be stretched, then give *Gravity* a whirl.

Mal Evans

PLAYING TIP

FIGHTER BOMBER

Enter your pilot's name as BUCKAROO and you will be able to select any of the missions. Also, pressing D skips sections of the mission without the need to refuel. Steve van Haelt, Antwerp, Belgium.

ATARI and Commodore BUSINESS DEALS from DIGICOM

COMMODORE STARTER KITS

The Commodore PC's - widely regarded as the best IBM PC compatible machines on the market - now include Starter Kits to help the first time user

Each Starter Kit includes:

- ★ VHS Video showing how to set the system up
- ★ Typing Tutor Program by Mavis Beacon
- ★ Word Processing Software PLUS 12 MONTHS ON SITE FREE REPAIRS and a 90 DAY TECHNICAL HELPLINE
- ★ Next Day Delivery by Courier

"YOU CAN'T GO WRONG WITH THESE PC's"

PRICES:

PC10 STARTER KIT with one 5 1/4" DISK DRIVE	
with MONO SCREEN	£529.00 + VAT (£608.35 inc VAT)
with COLOUR SCREEN	£679.00 + VAT (£780.85 inc VAT)
PC10 STARTER KIT with TWO 5 1/4" DISK DRIVES	
with MONO SCREEN	£579.00 + VAT (£665.85 inc VAT)
with COLOUR SCREEN	£729.00 + VAT (£838.85 inc VAT)
PC20 STARTER KIT with One 5 1/4" Drive and 20MB HARD DISK	
with MONO SCREEN	£759.00 + VAT (£872.85 inc VAT)
with COLOUR SCREEN	£899.00 + VAT (£1033.85 inc VAT)
PC30 STARTER KIT with One 3.5 DISK DRIVE and 20MB HARD DISK (80286-AT COMPATIBLE)	
with MONO SCREEN	£1099 + VAT (£1263.85 inc VAT)
with COLOUR EGA SCREEN	£1299 + VAT (£1493.85 inc VAT)

★ **VERY HIGH RESOLUTION VGA MONO AND COLOUR OPTIONS ALSO AVAILABLE**

PERIPHERALS

PC MOUSE	£30.39 + VAT = £34.95
1402 MONO MONITOR 12"	£80.00 + VAT = £92.00
1084S 14" STEREO COLOUR MONITOR	£233.91 + VAT = £269.00
1403 MONO MONITOR 14" VGA HIGH RESOLUTION	£99.13 + VAT = £114.00
14" COLOUR MONITOR VGA HIGH RESOLUTION	£312.17 + VAT = £359.00
14" PHILIPS 8833 STEREO COLOUR MONITOR	£225.22 + VAT = £259.00

ATARI MONITORS

ATARI SM124 MONO MONITOR	£86.09 + VAT = £99.00
ATARI SC1224 COLOUR MONITOR	£225.22 + VAT = £259.00
PHILIPS 8833 COLOUR MONITOR	£225.22 + VAT = £259.00

ALL MONITORS INCLUDE LEADS

AMIGA 2000 IBM PC AND AMIGA COMPATIBLE TWO COMPUTERS FOR THE PRICE OF ONE!

**£1229.00 (Inc VAT and next day delivery)
(£1068.70 exc. VAT)**

FEATURES

- ★ Separate keyboard & System Unit
- ★ 1 Megabyte RAM - expandable
- ★ Built-in 3.5 Disk Drive loads Amiga Software
- ★ Built-in 5.25 Disk Drive loads IBM Software
- ★ Built-in 20MB Hard Drive stores IBM & Amiga Software
- ★ 4096 Colours & Digital Stereo Sound
- ★ Runs IBM software with built-in XT Bridgeboard
- ★ IBM and Amiga Expansion Slots

ATARI 1040STE BUSINESS PACK

**£449.00 (Inc VAT and next day delivery)
(£390.43 exc. VAT)**

- ★ Includes the new 1 megabyte 1040STE keyboard plus over £200 worth of business software including WORD UP wordprocessing software, featuring glossary and mail merge, K-Spread 3.0 spread sheet and SUPERBASE PERSONAL Database software. Also includes Metacomco BASIC, Mouse Pad, all leads, Manuals and Mouse

ATARI MEGA 1 BUSINESS PACK

**£529.00 (Inc VAT and next day delivery)
(£460.00 exc. VAT)**

FEATURES:

- ★ Separate Keyboard and System Unit
- ★ Inc. all software supplied with 1040 STE Business Pack
- ★ Blitter chip installed for faster graphics

ATARI MEGA 2 BUSINESS PACK

**£829.00 (Inc VAT and Delivery)
(£720.87 Exc VAT)**

- ★ Includes 2 Megabyte Memory System Unit & Keyboard
- ★ Supplied with BUSINESS PACK OR PRO-24E MIDI MUSIC SOFTWARE WHICHEVER YOU PREFER

ATARI MEGA 4 BUSINESS PACK

**£1129.00 (Inc VAT and Delivery)
(£981.74 Exc VAT)**

- ★ Includes 4 Megabyte Memory System Unit ■ Keyboard
- ★ As with Mega 2 System, you choose between BUSINESS PACK & MIDI MUSIC SOFTWARE

PRINTERS

STAR LC10 MONO 9 PIN PRINTER	£146.96 + VAT = £169.00
STAR LC10 COLOUR ■ PIN PRINTER	£190.43 + VAT = £219.00
STAR LC24 PIN LETTER QUALITY PRINTER	£216.52 + VAT = £249.00
CITIZEN 120D 9 PIN MONO PRINTER	£120.87 + VAT = £139.00

ALL PRINTERS INCLUDE CABLES

CREDIT CARD ORDERLINE • 0908 378008 (Mon - Sat 9am - 6pm)

To order either call the orderline above with your Credit Card details OR make a cheque or P.O. payable to: Digicom Computer Services and send it with your order to the address below. Callers are also most welcome at the address below.

DIGICOM COMPUTER SERVICES LTD

Unit 36, Wharfside, Fenny Stratford, MILTON KEYNES, MK2 2AZ.

All prices include VAT and delivery by courier

Licensed Credit Brokers - Written quotation on request APR 34.5% Variable.





PORTEX CONVERSION

If you have a Portex database holding your name and address list, and if you have any London numbers on that list, you will doubtless be interested in a utility to sort out the new STD code changes. As you're probably aware, the 01 London codes are being changed to 071 and 081 for inner and outer London respectively. The Portex utility goes through any comma or carriage return delimited data file and automatically converts 01 numbers to their new, more directed, equivalents.

If you have a lot of address data then the £29.95 inclusive price tag will seem a small price to pay to get this work done. Ring Showerings Publishing Ltd on 01-922 8821 for more details.

HOTSHOT GRAPHICS 1.7

The Ctrl Alt Deli, that purveyor of all things intriguing in the PC utilities world, dropped me a copy of Hotshot Graphics

1.7 this week. Hotshot, for those who don't already know, is quite simply the best screen grabber and manipulation utility on the market. It will grab any text or graphics screen and save it in any of seven of the most popular file formats, including PCX, IMG and encapsulated PostScript.

It will also print out the screens to a 300DPI laser or PostScript device and includes a full editing program so you can tidy up or annotate the screens you capture. It takes up only 25K of spare RAM and can manipulate images even on a basic 512K PC.

The latest version, 1.7, copes with Windows and Presentation Manager and can capture screens to the clipboard for later import to other applications, or for loading into the main graphics program. Not cheap at £206.95, it's still without equal among screen grabbers. CAD on 0908 662759.

WAFERS IN THE NEC

According to the trade weekly MicroScope, Anamartic, the research company part-owned by Sir Clive Sinclair, is not the only one working towards solid state storage on semiconductor wafers. The Japanese company NEC said to be about to announce a range of PCs with wafer-scale hard disks at the Which Computer? Show later this month.

The drives apparently take the form of several wafers mounted one above the other, with the 20Mb unit fitting into a half-height drive slot. Capacities range up to 120Mb.

The drives will retain data for two to three weeks and have typical access times of 0.6ms, a whole heap faster than a physical hard drive. The problem, at

least initially, is price.

The units won't be cheap and will therefore be restricted to special purposes for some while yet. Still, we may see a future Amstrad machine with this kind of storage. Anamartic's hard drive is likely to be a full-height device, though similar in concept to the NEC drive.

PSION'S DYNABOOK

Around 10 years ago an idea was put forward for a portable computer the size of the average book. The machine was to have a high-resolution graphics display, be light enough to carry around and have sufficient memory to support a WIMP-type graphics operating system. It would also be capable of running it for 10s of hours on re-chargeable batteries.

It's interesting to see how far we have come towards what was then a true machine of dreams. The latest A4 size machines from Compaq, NEC, Toshiba and Zenith are the right sort of size, have considerable processing power and readable graphic screens. They have lev-

elled out at about 6lb, which is portable, though still a bit on the heavy side.

The one area where they still have some way to go is in power consumption, and the battery technology to keep them going for a reasonable time on one charge. The latest machines still have a typical battery life of under 10 hours. Wafer scale technology (as mentioned above) could bring down this consumption, but perhaps the best compromise to date is the flash EPROM system used on the Psion Mobile computers.

This technology takes very little power and combined with the use of removable EPROM cards for 'disk' storage, gives a time between charges of over 60 hours.

At this sort of rate, you really do have the beginnings of a true Dynabook. The machine is still not considered in the same breath as the US or Japanese machines, which is surely a shame. It's one example of British technology going where others can't at present, and for less than half the cost of the big names.

Simon Williams

XEROX VS APPLE vs MICROSOFT/HP

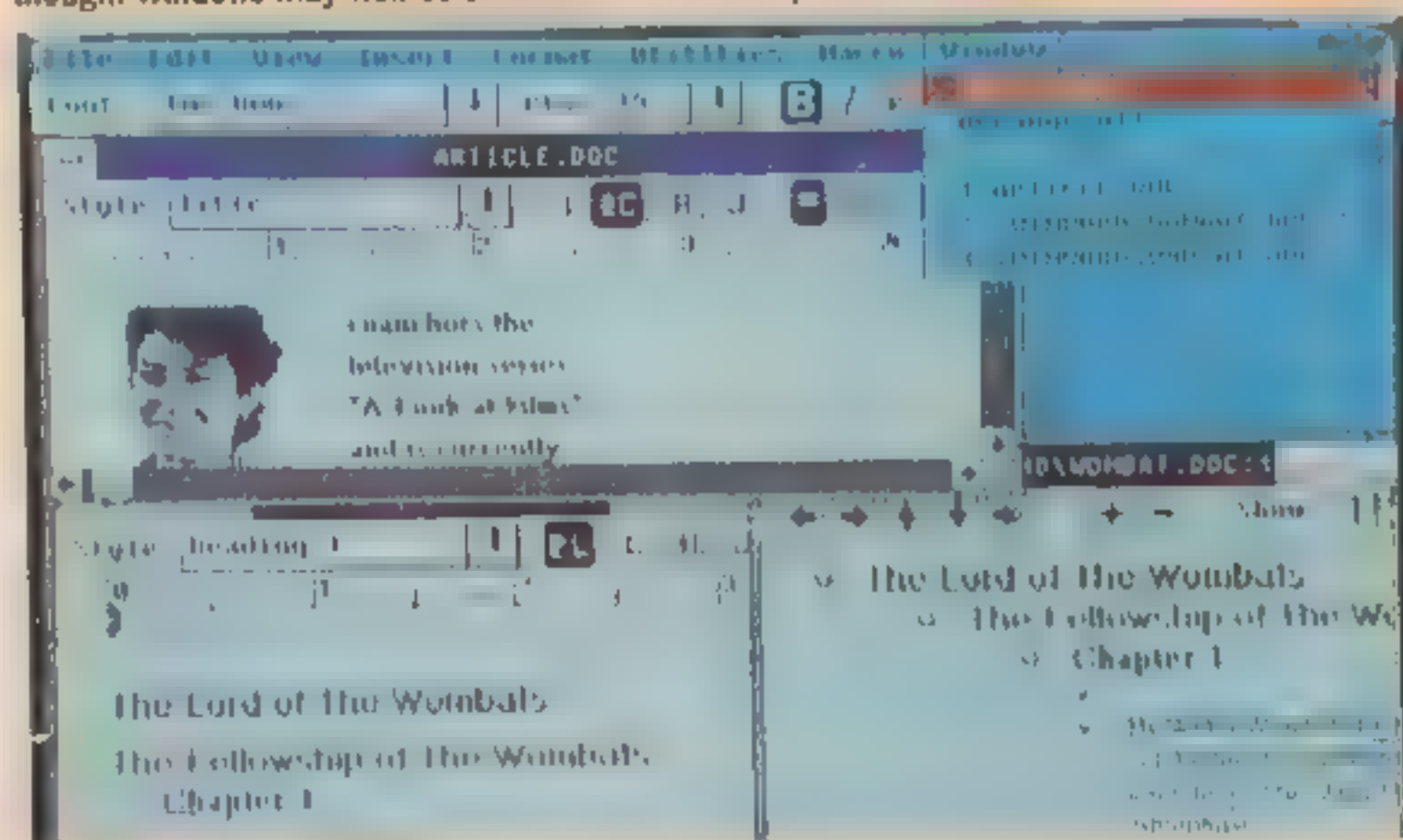
The continuing saga of the 'look and feel' of PC screen displays took another turn last month when a judge in California threw out all but one of Xerox's claims to copyright infringement by Apple. Xerox's story went that Apple's Steve Jobs saw a copy of Small Talk running in Xerox's Palo Alto Research Center in 1979 and based many aspects of the Mac user interface on what he saw.

Apple never denied that Small Talk had influenced the design of the Mac interface, but claimed that the implementation of the idea was fundamentally different from the original Xerox one. This is what the judge seems to have agreed with, though Xerox is still likely to appeal - then, what else is new.

If implementations of an idea are the things you can copyright, you would think that Apple's claim against Microsoft and Hewlett Packard would be lost for the same reason. This case is subtly different, though.

Microsoft had a licence from Apple to use some aspects of the Mac interface in Windows (and HP's New Wave, which is based on Windows). What Apple is claiming is that the two companies copied more elements of the interface than the licence covered. Apple lost that case in 1988, on all counts except the 'look and feel' of the interface and whether it was possible to copyright that.

The look and feel case has still to be decided - on it hangs the future of Windows. It would seem quite likely that the same argument will apply to this case as in the Xerox one, though. Windows may well be seen as a different implementation of the same idea.



All sorts of applications run under Windows, but what is its look and feel?

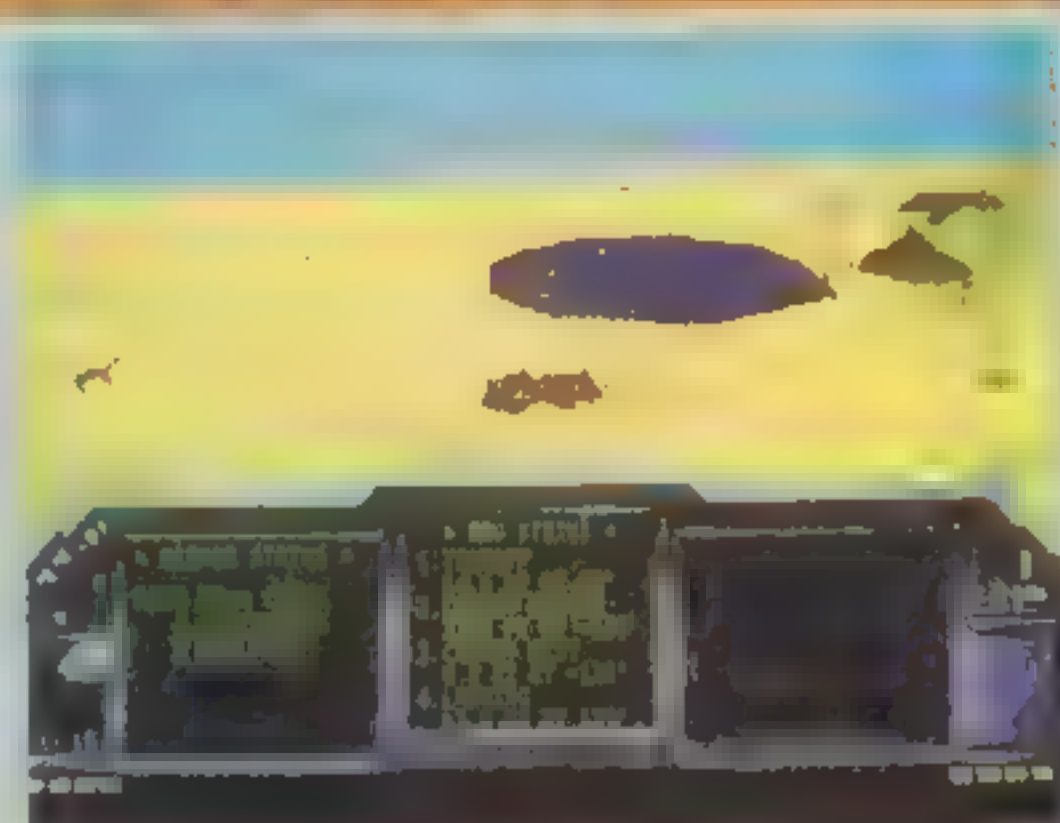
PC GAME WEEK

Electronic Arts • £39.99

The chopper in question - the Light Helicopter Experimental - is an idealised scout and attack helicopter the US Army is supposed to be secretly developing. So, in much the same vein as Microprose with F19 Stealth Fighter, Electronic Arts has released a simulation for a machine that doesn't exist yet, but which I'm sure the US Army would be only too pleased to add to its catalogue.

Thankfully LHX, the game, also simulates three existing choppers: the AH-64A Apache, the Sikorsky Black Hawk and the V-22 Osprey. These are rather more challenging simply because they are not perfect, which means you have to fly within their limitations.

The action takes place in Libya, Germany or Vietnam, the three parts of



the world most likely to give god-fearing Americans nightmares (although Central America might have been more appropriate these days). Vietnam seems a little out of date, but in each case a scenario has been developed that allows for a few nice cosy skirmishes without an international incident.

These allow for 12 different missions ranging from 'truck convoy', which involves destroying a convoy somewhere on the road, to 'POW rescue', where you've got to drop down into a heavily defended camp. All are fairly challenging and can be played against five levels of enemy competence

- enough to keep you busy for a long time.

From a couple of thousand feet the landscapes seem rather sparse compared to a MicroProse simulator, but drop down to 150 feet - where these helicopters perform best - and there is plenty of low-level detail. In addition to enemy aircraft there are hills, huts, houses, trees, tanks, missile launchers and much else.

LHX is well thought out and good fun, provided you don't mind the gung-ho mentality behind it all. The various choppers are highly vulnerable too, which makes it all the more challenging.

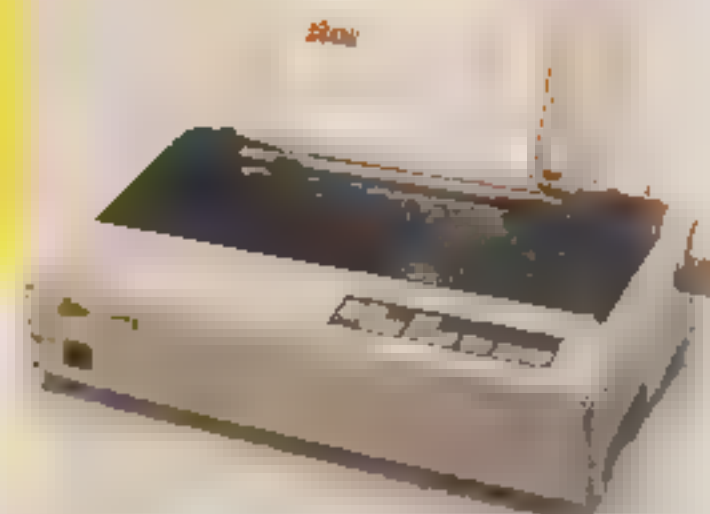
Matt Nicholson

YOU CAD, SIR

Ctrl Alt Deli's latest catalogue is a well-produced 72-page A4 production, full of the unusual kind of goody CAD is known for. In here are details of Freedom of Press, the Fantasy laser font compiler, SoftKicker in all its guises and the Optiks file translation utility. The UK-produced clip-art is particularly interesting and £50 for 250 bitmapped images or £80 for their vector equivalents seems very reasonable.

What has happened to the illustration for FastLock, though? Nigel Grant, the man behind CAD and normally such a polite guy, has included a blatantly sexist image in the ad for this hard disk protection device. What a picture of a pair of fishnet-stockinged female legs with a chain round them has to do with a security program for the PC is beyond me. This is, in my opinion at least, a nasty one, Nigel.

**QUALITY
SUPPORT
SERVICE**



DOT MATRIX PRINTERS

9 PIN 80 COLUMN		CPS	£
STAR	LC-10	144/36	125
STAR	LC-10 colour	144/36	166
STAR	LC-10 colour comm 84	144/36	166
CITIZEN	120D PLUS	120/25	108
CITIZEN	120D PLUS comm	120/25	108
CITIZEN	PRODOT 9	300/60	270
PANASONIC	KXP 1081	144/28	122
PANASONIC	KXP 1180	192/36	139
MAN TALLY	MT 81	130/26	107
OLIVETTI	DM 100SPR	200/30	119
OLIVETTI	DM 105SPR colour	200/30	159
EPSON	LX 400	180/30	135
HYUNDAI	HDP 910	180/34	134

9 PIN 136 COLUMN		CPS	£
STAR	LC-15	180/45	255
CITIZEN	PRODOT 9x	300/60	345
PANASONIC	KXP 1592	216/45	255
HYUNDAI	HDP 920	180/34	214

24 PIN 80 COLUMN		CPS	£
STAR	LC24-10	170/57	195
CITIZEN	SWIFT 24	160/53	239
CITIZEN	PRODOT 24	200/60	369
PANASONIC	KXP 1124	192/63	219

PIN 136 COLUMN		CPS	£
STAR	LC 24-15	200/67	325
STAR	XB24-15	240/80	510

*ALL DOT MATRIX PRINTERS MARKED WITH A * INCLUDE A ONE YEAR ON-SITE MAINTENANCE CONTRACT.

A ONE YEAR ON-SITE MAINTENANCE CONTRACT IS ALSO AVAILABLE ON ALL OTHER DOT MATRIX PRINTERS - ONLY £16.

A FULL RANGE OF SHEET FEEDERS, TRACTORS, ACCESSORIES AND CONSUMABLES ARE ALSO AVAILABLE FROM STOCK - CALL FOR DETAILS.

WARRANTY

ALL GOODS CARRY MANUFACTURERS WARRANTIES. ON-SITE WARRANTY AVAILABLE ON ALL DOT MATRIX PRINTERS AND P.C.'S - CALL FOR DETAILS. TECHNICAL SUPPORT AVAILABLE. E & O.E.

Goods not offered on trial basis. Goods are offered for sale subject to our standard terms and conditions of sale - available on request.

WE STOCK MANY MORE PRODUCTS - CALL FOR DETAILS. LARGE STOCKS OF FLOPPY DISKS AND RIBBONS CARRIED.

TERMS

ALL PRICES EXCLUDE VAT. PRICES AND SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE. CALL TO CONFIRM BEFORE ORDERING. STRICTLY CASH WITH ORDER. ACCESS & VISA WELCOME. POSTAL ORDERS, CHEQUES AND BANKERS DRAFTS ACCEPTED. OFFICIAL ORDERS FROM EDUCATIONAL & GOVERNMENT ESTABLISHMENTS, CORPORATES & PLUS WELCOME.

DELIVERY

ALL GOODS NORMALLY DESPATCHED WITHIN 24 HOURS FROM RECEIPT OF CLEARED PAYMENT - subject to stock availability.

P.C.S AND LASERS £15.00
OTHER LARGE ITEMS £30.00
SMALL ITEMS £5.00

NEXT DAY DELIVERY
NEXT DAY DELIVERY
4 DAY DELIVERY



Technology Centre

LASER & INK JET PRINTERS

			£
STAR	LASER 8	8PPM	1195
STAR	LASER 8	DUAL B.N.	1240
H. PACKARD	LASERJET II	6PPM	1299
OLIVETTI	PG 306	6PPM	899
OLIVETTI	PG 306	6PPM	1199
MAN TALLY	MT-905	6PPM	879
PANASONIC	KXP 4450	11PPM	1289
CANON	BJ-150	INKJET	595
MAN TALLY	MT-91	INKJET	541
OLIVETTI	TH-780	THERMAL	525

equivalent to IBM QUIETWRITER.



ONE YEAR ON-SITE MAINTENANCE IS INCLUDED IN THE PRICE OF ALL THE ABOVE PRINTERS MARKED WITH A *.

A FULL RANGE OF TONERS, FONTS, MEMORY CARTRIDGES, INK CARTRIDGES AND OTHER ACCESSORIES ARE STOCKED - PLEASE CALL FOR FURTHER DETAILS.

PLOTTERS & SCANNERS

HITACHI	681	A4-A3 PLOTTER	520
HITACHI	674	A4-A1 PLOTTER	2149
includes one year on site warranty.			
PANASONIC	FX-RS502	SCANNER	379
with 5 card, cables, IMAGE AND OCR software.			
CANON	IX 12F	SCANNER	659
CANON	IX 31F	scanner interface	99
CANON	O.C.R. software		399
NISCAN	HANDYSCANNER		199
NISCAN	O.C.R. software		159

CABLES AND CONNECTIONS

PRINTER CABLE 1 METRE	9
PRINTER CABLE 3 METRE	9
MODEM CABLE 1 METRE	10
T SWITCH 2 WAY SERIAL	18
T SWITCH 2 WAY PARALLEL	15
T SWITCH 2 WAY SERIAL CROSSOVER	25
T SWITCH 2 WAY PARALLEL CROSSOVER	25
BUFFER 64K IN LINE	79

THIS IS JUST A SMALL SELECTION OF OUR RANGE OF CABLES, SWITCHES, BUFFERS, ETC. - PLEASE CALL FOR FURTHER DETAILS.

PORTABLE P.C.'S

SHARP	4602	EO	839
SHARP	4601	HD40	1419
SHARP	5501	HD40	1949
SAMSUNG	5520C 256	HD32	1701

COMPUTERS

AMSTRAD (includes monitor)

	MONO	COLOUR	EGA
PC 1640 SD	511	687	704
PC 1640 DD	581	617	773
PC 1640 HD20	703	369	966

COMMODORE STARTER PACK (includes monitor)

ALL MODELS INCLUDE ONE YEAR ON-SITE MAINTENANCE

8088; 4.77/7.16/9.54mhz; 640K ram; 3 slots; serial/parallel ports; clock; 1 or 2 360K drives; MS DOS 4.01; GW basic and manuals.

	MONO	CGA	VGA	VGA
	£	£	MONO	COLOUR
	£	£	£	£
PC 10 SD	494	629	649	736
PC 10 DD	551	680	707	796
PC 20 HD20	675	799	846	929

*As PC 10 SD but includes hard disk drive!

80286; 6/8/12mhz; 1mb ram; 3 slots; serial/parallel ports; clock; 1x 1.44mb drive; MS DOS 4.01; GW basic and manuals.

	MONO	VGA	VGA
	£	MONO	COLOUR
	£	£	£
PC 20 HD20	967	967	1128



SAMSUNG (monitor not included)

ALL MODELS INCLUDE ONE YEAR ON-SITE MAINTENANCE

8088; 4.77/10mhz; 640K ram; 6 slots; serial/parallel ports; clock; 1x 1.2mb drive; MS DOS 3.3; GW basic and manuals.

	MONO/COLOUR	VGA
	£	£
SPC 1000 SD	410	519
SPC 1000 DD	473	581
SPC 1000 HD20	670	784

80286; 8/12mhz; 1mb ram (exp. to 5mb); 5 slots; serial/parallel ports; clock; 1x 1.2mb & 1x 1.44mb drives; MS DOS 3.3; GW basic and manuals.

	VGA
	£
SPC 8512 SD	1029
SPC 8512 HD20	1306

HYUNDAI (monitor not included)

8088; 4.77/10mhz; 640K ram; 5 slots; enhanced keyboard. Includes: serial/parallel ports; clock; 1 or 2 360K drives; MS DOS 3.3; GW basic and manuals.

	MONO	EGA
	£	£
SUPER 16TE SD	1119	1452
SUPER 16TE HD20	599	658

*SPECIAL INTRODUCTORY OFFER ON SUPER 16TE SD MONO ONLY... INCLUDES 12" MONO MONITOR... £399

80286; 8/12mhz; 640K ram; 6 slots; enhanced keyboard. Includes: serial/parallel ports; clock; 1 or 2 1.44mb drives; MS DOS 3.3; GW basic and manuals.

	VGA
	£
386X SD	564
386X HD40	1119

includes VGA Monitor

THIS IS ONLY A SMALL SELECTION OF THE P.C.'S THAT WE STOCK - CALL FOR FURTHER DETAILS.

MONITORS & CARDS

Mono monitors are available with green, amber or paper white displays - please state preference when ordering.

			Price £
MONO	HYUNDAI	HMV1200	12" 65
MONO	HYUNDAI	HMV 1201 FST	12" 70
MONO	PHILIPS	BM 7515	12" 73
MONO	PHILIPS	BM 7913 FST	12" 80
MONO	SAMSUNG	MA 2671 3:5 FST	12" 81
MONO	AKHTER	MONO 14 FST	14" 79
MONO VGA	PHILIPS	BM 7749 FST	12" d.w 107
MONO VGA	AKHTER	VGA 14M FST	12" d.w 99
MONO VGA	SAMSUNG	ML 2611	12" d.w 81
MONO VGA	SAMSUNG	ML 4571	14" d.w 95
MONO A4	SAMSUNG	MP 5671 inc card & drivers	634
CGA	PHILIPS	CM 8533	14" 209
EGA	PHILIPS	CM 9073	14" 289
EGA	SAMSUNG	CM 4561	14" 281
VGA	HYUNDAI	HDM 401 FST	14" 253
VGA	PHILIPS	SCM 3809	14" 372
VGA	SAMSUNG	CJ 4561	14" 281
VGA	AKHTER	VGA 14	14" 273
MULTISYNC	SAMSUNG	CT 4561	14" 340
MULTISYNC	AKHTER	ECM 3600	14" 360
MDA CGA CARD with PRINTER PORT			45
MDA CGA EGA CARD			99
VGA CARD			148

CITIZEN	OSDD 05A-WD	
	3.5" 120K 5 1/4" 25" KIT	59
CITIZEN	OSDA 29C-WD	
	3.5" 1.44mb 5 1/4" 25" KIT	69
CITIZEN	OSD 76A-WD	
	3.5" 120K AMSTRAD KIT	59
AKHTER	AMS 360A	
	5 1/4" AMSTRAD 2000 360K ext	79
HYUNDAI	360 INTERNAL 5 1/4" 360K	59
TEAC	1 1/2" INTERNAL 5 1/4" 1.2mb	69
JAVELIN	HC20	
	20mb XT HARD CARD. 62ms	185
JAVELIN	HC30	
	30mb XT HARD CARD. 62ms	199
WD FILECARD	HC40 40mb AT HARD. 52ms	249
KYOCERA	KC 20Bis	
	20mb XT AT DRIVE. 62ms. 3.5"	138
KYOCERA	KC 30Bis	
	30mb XT AT DRIVE. 62ms. 3.5"	158
KYOCERA	FRAME	
	5 1/4" 1 1/2" for 3.5" hard drives	5
XT 20	HD CONTROLLER	
	XT VFM CONTROLLER	44
XT 30	HD CONTROLLER	
	XT RLL CONTROLLER	44
AT 20	FD-HD CONTROLLER	
	AT VFM CONTROLLER	110
AT 30	FD-HD CONTROLLER	
	AT RLL CONTROLLER	114
AKHTER	MDM 2400 PC CARD MODEM	
	V21 V22 V22bis inc. software	135
BT	CF-10 FAX MACHINE	
	as advertised on TV	606
FAXTEL	FAX SWITCH	
	Auto switches calls to fax or phone	59
OF-NET-300	ETHERNET CARD	
	Novell Ms-NET compatible	143
XT 88-6mhz	MOTHERBOARD - RAM	69
AT 286-12mhz	MOTHERBOARD - RAM	199
AT 386-16mhz	MOTHERBOARD - RAM	549
PC XT CASE	FULL SIZE XT CASE	55
PC AT CASE	BABY SIZE AT CASE	75
AT-PSU	150W full approvals	78
KEYBOARD 84	84 KEY UK LAYOUT XT	41
KEYBOARD 102	102 KEY UK LAYOUT XT AT	57
576K RAM CARD - XT		22
2mb EMS RAM CARD - speech XT or AT		93
DM500 SERIAL MOUSE - inc. DR HALO III's ware		36
XT MULT. CARD - OIRS232 printer clock floppy cont		54
AT - G CARD RS232 printer		54
XT RS232 CARD		19
AKHTER UPS - 250W		199

THIS IS ONLY A SMALL SELECTION OF OUR HARDWARE - CALL FOR DETAILS.

Technology Centre

HOLE HOUSE FARM, BURNLEY RD, CLIVIGER, LANCS, BB11 3RF

Tel. & Fax: 0282 831900 (24 HOURS)



COMPETITION TIME

I don't know whether you take an active interest in pop music at all. If you do you'll already know that Rebel M.C., or 'Reb' as he likes to be known to his nearest and dearest, has a rather optimistic tune entitled *Better World* that's allegedly the dance sensation that's sweeping the nation - but not Aylesbury.

Among numerous requests for world peace and for the fighting to cease, and recommendations that what the world needs now, apparently, is love sweet love, no not just for some but for everyone, and exhortations for us to 'get down', Reb suddenly tells us to "Wait, while I reset the Atari."

Judging by the video that accompanies this cheerful little number, however, Reb would be hard-pushed to find the keyboard, let alone the reset button.

What I want you good people to do is to come up with an ST Top 10. This can contain references to STs, or even to the games machine they call the Amiga (be as rude as you like).

There's a special mystery prize (translation: haven't the foggiest, but it'll be good) on offer for the best contribution. Send your ST Top 10 to: Steve Carey's ST Top 10, Express, 30 Monmouth St, Bath BA1 2AP.

MUSICAL CHEERS

And while we're on the subject (translation: tenuous link coming) of STs and music, did you know that Atari computers were used to produce the soundtrack for *Born on the Fourth of July*? Or that Madonna, and groups Milli Vanilli, Fleetwood Mac and Kraftwerk are all enthusiastic Stacy users?

Still, if you reckon that's impressive, just wait till you hear what Fleetwood Mac's Mick Fleetwood (hence, I suppose, the name) has been investing in recently. Apparently the aged drum-thumper sank a considerable amount of dollars in something called the Hotz MIDI Translator, invented by Jimmy Hotz (hence, I suppose, the name).

It's a bizarre device with 106 force-sensitive pads that can be attached to the body! Each pad plays a different note or chord and can be formatted according to the user's needs. As a learning tool it's said to be terrific, since it won't let you play a wrong note, shifting the note grid underneath the sensors as the performer plays.

Fleetwood has been quoted as saying that this "completely new instrument will revolutionise people's access to making music."

Since it's currently being bundled with the Stacy laptop in the States at \$7,995, however, it's likely that the revolution will have to start without most of us coming along.

STACY ON SALE

The new ST laptop Stacy is now becoming fully available in the States - \$2,499 gets you a Stacy 2, featuring 2Mb of RAM and a 40Mb hard drive, while \$2,899 buys the 4Mb RAM version.

TACK CORNER

Remember the free condoms? The free Easter eggs? Well, latest completely gratuitous stunt from those tacky wacky funsters at Paradise Computers, is an offer of a free *How To Play* book with every order over £5.

So, if you are a) ordering PD and b) interested in learning how to play badminton, bridge, tennis, soccer or cricket, then simply write in for your free copy of the latest Paradise PD catalogue from Paradise Computers, 9 Westfield Crescent, Brighton, Sussex BN1 8JB. Tell 'em I sent you.

CHARITY COMPILATION

An imaginative scheme has been announced to aid a pilot nursery scheme threatened with closure due to lack of funds. Paul Bocij of the Spectrum Unemployed User Group tells me that the group has plans to produce a new software compilation to mark its fifth anniversary. He claims that the compilation, Microcare '90, is the first charity

software venture to be attempted by private individuals.

Despite the group's name, the compilation is to be ST only and will be released as 'licenseware', available from public domain libraries for about £3. Paul is interested in hearing from anyone interested in donating programs to the venture: contributors will get full credits on both software and documentation. The deadline is June 30th, with the compilation released on 5th November.

More details: Micro Care 90, 19 Moore St, Normanton, Derby DE3 6SN, or call 0332 367642.

HOW TO MAKE GAMES

Sigma has published a new guide to creating games using Mandarin's STOS games creator.

Written by Stephen Hill, who wrote the original STOS manual, the book goes from absolute basics of game planning through to animation, scrolling, sound and 3D graphics techniques and assembly language programming.

"It's a well known fact," the book's first line reads, "that the journey of a thousand miles begins with just a single step." Well, quite.

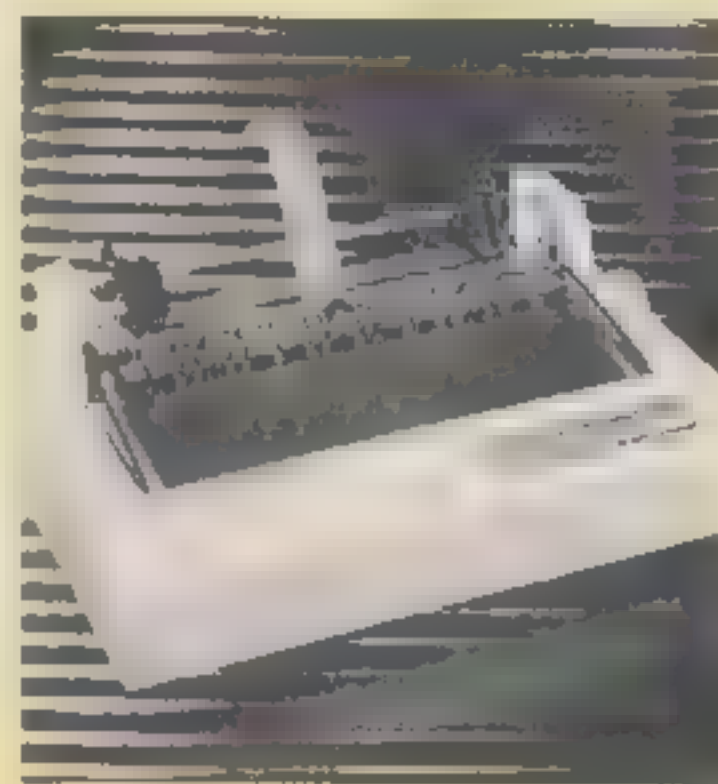
The 280-page paperback *Game Maker's Manual - Atari ST and STOS BASIC* costs £11.95 (ISBN 1-85058-158-4) and is available from all good bookshops or direct from Sigma Press, 1 South Oak Lane, Wilmslow, Cheshire SK9 6AR.

Steve Carey

SON OF 120D

Citizen Europe, which gave a grateful world the 120D, has announced its replacement. The older model, which is said by Citizen to have been Europe's best-selling 9-pin printer for four years (sales in Europe: 600,000, with 110,000 of them in the UK), is being overtaken by the 120D+.

The new model includes two NLQ (that's Near Letter Quality to you and me) fonts, Citizen Courier and Citizen Display, selectable from the control panel, as well as a full IBM emulation in NLQ previously only available in draft. The £230 printer, which has a full two year warranty, is manufactured at Citizen's Scunthorpe factory. More details on 0895 72621.



• The new printer from Citizen Europe.

THEME PARK MYSTERY

ST
GAME
WEEK

Mirrorsoft •
£24.95

At the end of last year Ocean released *Batman and The Untouchables*. Both were made up of a series of levels which were really separate games thrown into one. *Theme Park Mystery* is in a similar vein, being made up of four different levels.

Theme Park Mystery is a mixture of arcade and adventure sections, spanning Yesterday Land, Dream Land, Dragon Land and Future Land. The objective of the game is to find your own way through, so there are very few clues in the manual. However, you can obtain clues by returning to level one and meeting Zoltar, a major influence in the game.

It's set in a haunted theme park and your objective is to solve the mystery of the ghost, and make the park habitable (and profitable) again. In level one you face three arcade machines. You don't need to play them all to proceed but to progress onto the next level you need



to find a railway ticket and then catch the train to level two.

The railway ticket can only be obtained from Zoltar (in the first arcade machine) but to get him to offer it, you first need to give him a token, obtained by playing the other machines.

You then advance into a horizontally-scrolling platform level. Here, you need to find the sleeping potion if you're to progress, but there are other objects which must also be picked up ready for when you reach the end of the next level.

Level three takes you into Dream Land - a surreal animated adventure played on a chess board. The graphics in this level are very strange, ranging from weird lips to origami birds. You need to pick up two demons in this land and collect keys to pass onto the next - but it's not easy.

You have to buy time in Dream Land by collecting tokens from the first land. If you run out of time you must go back to Yesterday Land and earn more for yourself.

The final level is Future Land which is a straightforward shoot-'em-up section. Here you must blast everything that moves and collect the floating balls.

Theme Park is an unusual type of game, made exciting by some competent visuals and some brilliant sound effects. Since the levels are all inter-related, you're forced to go back through them for clues and extra time.

Consequently, you feel it's a very complete and rounded game and once you start working your way through the challenges, you soon find it's one of the most engrossing adventures you've played.

Mark Higham

I'D LIKE TO THANK...

The Bournemouth and Poole Atari User Group produces *8:16*, a bi-monthly 'Alternative Atari Newsletter' (which includes Atari 8-bit stuff; hence the title). The latest issue contains the BaPAUG annual awards.

My mention of this fact is in no way connected with the winner of the Best Magazine category (ST Format). So there.

Other 'ST Best' awards include Software to Kick Off; Software House to Mandarin, Public Domain Software to Ani-ST; Serious Software Supplier to GFA; Programmers to The Bitmaps; Wargame Sim to Borodino; and Serious Software to STOS.

Awards not to be proud of include Worst Computer Show to The PC Show and Biggest Disappointment to Atari at Atari Shows.

Each issue of *8:16* costs 95p. Contact Colin Hunt of the Bournemouth and Poole Atari User Group, c/o 248 Wimborne Rd, Oakdale, Poole, Dorset BH15 3EF.

• Down Dorset-way User Group newsletter with all Atari delights.



BEST

- Bargains
- Advice
- Prices
- Offers
- Jobs

SHOPPING EXPRESS

The weekly computer market place for people *serious* about buying

THIS WEEK'S BUYERS' GUIDE

MODEMS PRINTERS & PORTABLES

The hardware buyer's
bible for those
essential peripherals

STARTS ON PAGE 17

JOB SHOPPING?

Check out our
recruitment section inside

ALSO INSIDE

● **Take**
advantage of our
latest mail order offers.

● **Benefit**
from our reliable buy-
ers' guides. No waffle,
just facts.

● **Pick up**
bargains galore from
dealers and readers
from all over the UK.

● **Score**
on the free reader
adverts. Sell your prod-
ucts for *absolutely no*
charge!

Save your cash,
save your time

DOLAN ELECTRONICS LIMITED

DANFFORDDGAR HOUSE
CARMARTHEN, DYFED
SA32 7DU.

SALES: 0267 234444

FAX: 0267 231863



all prices ex VAT & Delivery
CWO or COD available



specifications subject to change.

£399!

12MHz XT

- ★ 640Kb RAM expandable to 1Mb on board
- ★ 12MHz CPU switchable to 4.77MHz
- ★ 102 Key Keyboard
- ★ 360Kb 5 1/4" Floppy Drive
- ★ 2 Serial Ports
- ★ 2 Parallel Ports
- ★ Real Time Clock/Calendar
- ★ 5 Free Expansion Slots
- ★ Hercules Graphic Card & High Res Mono Monitor
- ★ EZ-DOS vers. 4.01 & Basic
- ★ Full Set of Manuals & Documentation

Single Drive 12" Green Mono System £399
40Mb 30Ms 12" Green Mono System £599
14" Flat Screen Paper White Mono .. add..£35
14" EGA Colour Monitor add..£226
720Kb 3 1/2" Floppy Drive..... add...£65
640Mb to 1Mb RAM Upgrade..... add..£45

£2195!

33MHz 386

- ★ 4Mb RAM expandable to 16Mb on board
- ★ 33MHz CPU Landmark Speed 44MHz w/32Kb Cache
- ★ 102 Key Keyboard
- ★ 1.2Mb 5 1/4" & 1.44Mb 3 1/2" Floppy Drives
- ★ 45Mb 25Ms Hard Drive w/1:1 Interleave 32Kb Cache
- ★ 2 Serial Ports
- ★ 2 Parallel Ports
- ★ Real Time Clock/Calendar
- ★ 5 Free Expansion Slots
- ★ Super VGA Card w/512Kb RAM 1024x768 High Res Mono Monitor
- ★ EX-DOS vers. 4.01 & Basic
- ★ Full Set of Manuals & Documentation

Complete System Mono £2195
Complete System VGA Colour £2345
Complete System Super VGA Colour £2495
130Mb 18Ms Hard Drive Upgrade add...£350

£795!

16MHz 386-SX

- ★ 1Mb RAM expandable to 8Mb on board
- ★ 16MHz CPU switchable to 6MHz
- ★ 102 Key Keyboard
- ★ 1.2Mb 5 1/4" & 1.44Mb 3 1/2" Floppy Drives
- ★ 2 Serial Ports
- ★ 2 Parallel Ports
- ★ Real Time Clock/Calendar
- ★ 5 Free Expansion Slots
- ★ Super VGA Card w/256Kb RAM High Res Mono Monitor
- ★ EZ-DOS vers. 4.01 & Basic
- ★ Full Set of Manuals & Documentation

Dual Drive Mono System as above £795
20Mb 40Ms Mono System £995
45Mb 25Ms Mono System w/32Kb Cache £1145
14" VGA Colour Monitor add...£200
14" Super VGA Colour Monitor add...£350

MISCELLANEOUS

- XT 40Mb 40Ms Hard Drive Kit £199
- XT 40Mb 40Ms Hard Card £215
- AT 45Mb 25Ms Hard Drive £275
- 60mb Internal Tape Backup £450
- 60Mb External Tape Backup £425
- 360Kb 5 1/4" Floppy Drive £40
- 1.2Mb 5 1/4" Floppy Drive £55
- 720Kb 3 1/2" Floppy Drive £65
- 1.44Mb 3 1/2" Floppy Drive £85
- Microsoft Windows vers 2.03 £25
- Logotron 8 in 1 software £30
- Genius Mouse w/Dr-Halo Software £35

The **DOLAN COMPUTERS** have the reliability, performance and price that leaves the competition standing. Our professional quality systems come fully configured and ready to run. The DOLAN COMPUTERS were the outright winners in a recent survey of over 50 computers.

The DOLAN COMPUTER range are unbeatable on specification and price.

THE SHOPPING EXPRESS BUYERS' GUIDE TO PRINTERS, MODEMS & PORTABLES

The first peripheral most people buy is a printer – a word processor is pretty useless without one! Here we present the Express guide to dot-matrix printers, together with some advice on portables and modems

PRINTERS

Every computer owner needs a printer. From the largest corporate business to the smallest home user the time will come when you need more than what's shown on screen, you'll need hard copy.

● AMSTRAD DMP4000

0279 454555

£349

9-pin • 200cps draft 50cps NLQ • 8K buffer • Epson compatible

Bottom of the usable range Amstrad printer, which is unsophisticated, provides only adequate printing quality and which is expensive when compared with similarly-specified machines from other manufacturers. The device is both Epson and IBM compatible.

Power ★★★

Value for money ★★

● AMSTRAD LQ3500

0279 454555

£349

24-pin • 160cps draft 54cps NLQ • 8K buffer • Epson compatible

Amstrad's weird and wonderful pricing structure has ensured that this 24-pin printer offering roughly similar specifications to the DMP4000 but a vastly improved print quality is the same price – and you can find good discount deals. 160cps draft speed for a 24-pin dot matrix machine is outrageously slow and the 8K buffer doesn't excite thrills of desire.

Power ★★

Value for money ★★★

● AMSTRAD LQ5000

0279 454555

£449

24-pin • 288cps draft 96cps NLQ • 8K buffer • Epson compatible

One of the best from the Amstrad stable. Featuring reasonable print speeds, a wide carriage and built in tractor feed as standard, the machine is worthy of consideration by small business persons.

Power ★★★★★

Value for money ★★★

● BROTHER 1109

061-330 6531

£195

9-pin • 100cps draft 20cps NLQ • No buffer • Epson compatible

Expensive, underspecified printer from well-known manufacturer Brother who really needs to try harder. Almost £200 for a printer which doesn't have a printer buffer indeed!

Power ★

Value for money ★

● BULL COMPUPRINT 4/20

01-568 9191

From £440

9-pin • 200cps draft 40cps NLQ • 7K buffer • Not Epson compatible

Available in a choice of carriage widths and optional serial or parallel interface, the Bull machine is an incredibly expensive, deathly ordinary dot matrix with little to recommend it. Unless you're a corporate buyer with the name Bull indelibly marked on your purchasing order forms, look elsewhere....

Power ★★★

Value for money ★

● CITIZEN HQP-40

0895 72621

£499

24-pin • 200cps draft 66cps NLQ • No buffer • Epson compatible

Citizen have been in the printer business for a number of years and although some of the company's early machines were a little strange, the latest printers are worthy of consideration. The HQP-40 is a fairly expensive, but well made 24-pin printer – but the lack of print buffer should be noted.

Power ★★★

Value for money ★★

● EPSON LX-850

0442 61144

£279

9-pin • 180cps draft 30cps NLQ • 3K buffer

Bottom of the range Epson 9-pin machine featuring two NLQ fonts, only moderate print quality but the great name Epson on the panel.

Power ★

Value for money ★

● EPSON EX-800

0442 61144

£629

9-pin • 300cps draft 60cps NLQ • 8K buffer

Epson is the name in the printer world. The company whose printer control codes have been adopted as an unofficial standard by almost all other manufacturers. The company's printers are well made, available everywhere and supported by all software. However, the popularity of Epson has ensured the price of the machines has remained inflated when compared with similarly-specified machines from other manufacturers. The EX-800 is fast, and of high quality construction. A optional colour adapter is available.

Power ★★★★★

Value for money ★★★

● EPSON LQ550

0442 61144

£399

24-pin • 150cps draft 50cps NLQ • No buffer

Uninspiring 24-pin mid-range printer from Epson. Four built-in letter-quality fonts, friction and tractor paper handling and good quality printing.

Power ★★★

Value for money ★★★

● EPSON FX850

0442 61144

£459

9-pin • 264cps draft 54cps NLQ • 8K buffer

Fast but fairly expensive 9-pin machine featuring innovative cut sheet and fan fold paper handling, quality printing, and fast draft mode.

Power ★★★★★

Value for money ★★★

● EPSON EX1000

0442 61144

£829

9-pin • 300cps draft 60cps NLQ • 8K buffer

One of the top of the range Epson 9-pin machines which has a fast draft printing mode, but has a tendency to lose the paper feed after 20 or 30 sheets have been processed. First choice for professional programmers needing listings.

Power ★★★★★

Value for money ★★★

● EPSON DFX5000

0442 61144

£1,699

9-pin • 533cps draft 96cps NLQ • 3K buffer



**DATAPLEX**

129 Bath Road
Slough Berkshire
SL1 3UW
Tel: 0753 35557

Unit 2
17-19 High Street
Swindon, Wiltshire
Tel: 0793 488448

Showroom open

Monday Friday 9.30 - 5.30 Saturday 9.30 - 4.30
All prices excluding VAT and delivery

AMIGA HARDWARE

Amiga 500 + Batman Pack & 5 games, joystick £345.00

New Amiga Flight of Fantasy Pack - £317.00

AMIGA BATMAN PACK £317**New from Amiga**

Includes: TV modulator, 3.5" Disk Drive with Amiga DOS Kickstart, Workbench and Batman The Movie game, F18 Inceptor, Paint 2, New Zealand Story.

AMIGA ACCESSORIES

Inc. database, spreadsheet, WP, music, art & design, logo and BBC emulator.

Amiga Class of the 90's.....£439

Amiga A501 RAM pack + Clock (original).....	£85
Amiga joystick	£10
TV Modulator.....	£15
Phillips CM8833 colour monitor	£199
Phillips BM7502 12" green monitor.....	£79
Phillips BM7522 12" amber monitor.....	£89
Amiga To Philips cable.....	£8

AMIGA DRIVE

1 Meg 3.5" external.....	£68
1 Meg 3.5" internal	£63
1 Meg 5.25" external.....	£99

ATARI DRIVES

1 Meg 3.5 external.....	£68
1 Meg 5.25 external.....	£99
1 Meg 3.5 internal	£63

ATARI COMPUTERS

520 STFM Discovery Pack	£248
520 STE Power Pack.....	£325
1040 STE.....	£378
1040 STE Power Pack	£385

SCANNERS

Atari Scanner.....	£169
Amiga Scanner	£169

MOUSE

Naksha mouse.....	£39
-------------------	-----

STAR PRINTERS

Star LC10 mono.....	£135
Star LC10 II mono	£159
Star LC10 colour.....	£168
Star LC2410	£219
Star LC15 9 Pin 136 column.....	£264
Star LC2415 24 Pin	£328

PANASONIC**Unbeatable Prices!**

Panasonic 1081	£125
KXP 1124	£219
KXP 1180	£144

CITIZEN PRINTERS

Citizen 120D.....	£120
Citizen 180E.....	£127
Swift 24	£255
Colour upgrade for Swift	£42

MANNESMAN TALLY

Mannesman MT 81 Dot Matrix.....	£115
Mannesman Sheetfeeder.....	£62
Mannesman Serial Interface	£49

REPAIRS FOR AMIGA AND ATARI

If you want a mega-fast printer this is your baby. At 533 characters per second in draft, this machine is the fastest of the Epson range. 96 characters in NLQ mode is fairly racing along too!

Power ★★★★★

Value for money ★

● IBM PROPRINTER III

01 747 0747

£442

9-pin • 320cps draft 65cps NLQ • 32K buffer

Fast, and with a huge print buffer and reasonable price tag (when compared with similar machines from Epson and Amstrad) the IBM is the first choice for the corporate buyer.

Power ★★★★★

Value for money ★★★★★

● IBM QUIETWRITER III

01-747 0747

£1,139

274cps draft 171cps NLQ • No buffer

Calling migraine sufferers everywhere! The Quietwriter III from IBM relies on thermal technology to provide whisper quiet operation ■ a fast printing speed.

Power ★★★

Value for money ★★★

● MICRO PERIPHERALS MP165+

0706 217799

£198

9-pin • 190cps draft 32cps NLQ • No buffer • Epson compatible

Bottom of usable range Micro Peripherals printer which provides reasonable print quality and speed at a moderate price. Many dealers offer large discounts.

Power ★★

Value for money ★★★★★

● MICRO PERIPHERALS MP200+

0706 217799

£299

pin • 240cps draft 40cps NLQ • buffer • Epson compatible

Fast, moderately priced printer which can accept a range of plug-in font cards ensuring the versatility of the printer. Good deals to be had.

Power ★★★

Value for money ★★★

● OLIVETTI DM250

0908 374900

£649

24-pin 180cps draft 60cps NLQ 24K buffer Epson compatible

Good quality printer from erstwhile typewriter manufacturer Olivetti. This device features a large print buffer and moderate printing speed. However, the price tag is just a little on the large side.

Power ★★

Value for money ★★

● OLIVETTI DM100/105

0908 374900

From £235

9-pin • 120cps draft 25cps NLQ • 7K buffer • Epson compatible

Unpretentious little matrix machine from Olivetti which can also be had in a colour version (DM105).

Power ★★

Value for money ★★

● PANASONIC KXP1081

0344 853915

£219

9-pin • 180cps draft 24cps NLQ • 1K buffer Epson compatible

Very popular dot matrix printer from well-known manufacturer Panasonic. Reasonably specified, fully Epson compatible and available discounted at a price which will take your breath away this machine is the first choice for prospective printer purchasers with limited budgets.

Power ★★★

Value for money ★★★★★

● STAR LC10

0494 471111

£199 (mono), £259 (colour)

9-pin • 144cps draft 36cps NLQ • 4K buffer • Epson compatible

Like the Panasonic KXP1081, the LC10 from Star is a very popular, highly desirable dot matrix, featuring good specifications, full Epson compatibility and a colour option all ■ a breath-takingly small (discounted) price.

Power ★★

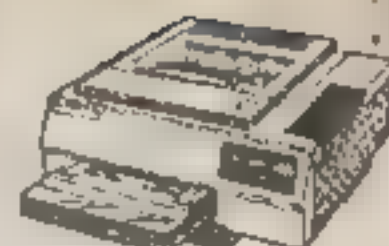
Value for money ★★★★★

PORTABLE COMPUTERS

There's never been a better time to buy a portable computer. Advances in technology, the breaching of the PC compatibles market by Amstrad and the price wars of the major manufacturers have all ensured that you can buy a pocket or laptop computer with processing power which previously would have occupied a room... ➤



ULTIMATE BUSINESS MACHINES



IF YOU THINK YOU'VE TRIED THE BEST..TRY THE ULTIMATE
OPEN MON-FRI 9 TILL 6 SATURDAY 9 TILL 1

AMSTRAD			OLIVETTI			COMMODORE			HYUNDAI			AKHTER		
MODEL MON COL EGA			The new Olivetti PCS Range offers unbeatable performance at an incredibly low price. We feel that the PCS range offers you the customer a better deal than is presently on offer from any other manufacturer. 8086 compatible running at 10Mhz, 840K ram expandable to 2.5Mb on motherboard 3 full size slots and on-site warranty makes this the deal of the 90's			NEW STARTER PACK RANGE MODEL MON COL VGA VEGA			MODEL MON COL EGA VGA			MODEL MON COL VGM VGC		
PCW8256 318 PCW8512 399 PCW9512 424 PC1512SD 384 438 PC1512DD 438 514 PC1512HD 558 636 PC1840SD 458 544 628 PC1840DD 518 597 682 PC1840HD 588 778 858 SOFT-INC MON COL 12" 14" PC2086SD 538 618 699 786 PC2086DD 598 679 768 849 PC2086HD 765 851 936 1021 On-Site-Warranty £30 for above Below Inc Maintenance PC1286SD 750 835 920 1005 PC2286DD 851 936 1021 1106 PC2286HD 1021 1106 1191 1276 PC1386SD 1180 1265 1351 1436 PC2386HD 1702 1787 1872 1957			MON COL PCS88SD 562 719 PCS88DD 630 803 PCS88HD 803 978 PCS286DD 889 1062 PCS286HD20 990 1149 PCS286HD40 1062 1235			PC10SD 485 625 645 725 PC10DD 535 665 685 775 PC20HD 685 795 855 945 AT80286 12MHZ EGA PC30HD20 995 1155 PC40HD40 1240 1369 AT80386 18MHZ 1MB RAM PC50HD40 1729 1892 PC50HD100 2025 2215 AT80386 25MHZ 2MB RAM PC60HD80 3380 3541 PC80HD200 4082 4243			SUPER16-TE 640K 10MHZ XT-S/D 399 549 699 759 XT-D/D 469 609 759 819 XT-HD20 599 749 899 959 XT-HD30 819 769 919 979 SUPER 288X 1MB 12MHZ AT288X-SD 599 775 849 899 AT288X-HD 799 975 1049 1099 SUPER 386S 1MB 16MHZ VGA AT386SX 995 1129 SD16Mhz AT386C 1241 1410 SD20Mhz PORTABLE LT3 AT 1MB RAM 20MB 1399			PC/XT MINI-PC 479 625 S/D MINI-PC 538 684 D/D MINI-PC 740 899 H/D AT288-12SD 926 1099 AT288-12HD40 1207 1385 AT288-16SD 1020 1198 AT288-16HD40 1299 1479 AT386-16SD 1085 1263 AT386-16HD40 1366 1545 AT386-20SD 1320 1498 AT386-20HD40 1599 1779 AT386-25SD 1695 1873 AT386-25HD40 1975 2154 AT386-25HD100 * 2538 2716 AT386-25HD200 * 2895 3091 AT386-25HD300 * 3382 3560 ** = Floor Standing All above include On-Site-Maint		
STAR			PANASONIC			CITIZEN			H P			EPSON		
MODEL SPEED PRICE			MODEL SPEED PRICE			MODEL SPEED PRICE			MODEL PRICE			MODEL SPEED PRICE		
9 PIN DOT MATRIX			9 PIN DOT MATRIX			9 PIN DOT MATRIX			THINKJET			LX400		
LC10 144/36 122			KXP1081 144/28 119			120D PAR 120/25 107			* 254			180/30 130		
LC10-II 180/50 148			KXP1180 192/36 139			120D SER 120/25 124			* 344			LX850 240/48 199		
LC10-Colour 144/36 159			24 PIN DOT MATRIX			180E PAR 173/30 128			* 408			FX850 264/54 329		
LC15 180/45 249			KXP1124 192/63 219			180E SER 173/30 154			* 419			FX1050 240/48 383		
FR10 300/78 * 282			KXP1624 268/65 362			PRODOT 9 300/45 267			* 509			EX800 300/60 459		
FR15 300/78 * 376			KXP1695 362			PRODOT 9X 300/45 CALL			* 844			EX1000 300/60 599		
24PIN DOT MATRIX			KXP1654 CALL			PRODOT 24 240/60 CALL			* 875			DFX5000 533/400 1139		
LC24-10 200/67 194			LASER PRINTERS			SWIFT 24 PIN 180/60 239			RUGGED WRITER			LQ400 180/60 209		
LC24-15 200/67 318			KXP4450I 11PPM * 1239						HP LASERS			LQ550 180/60 279		
XB24-10 240/80 * 368			ACCESSORIES						LASERJET IIP			LQ850 264/88 445		
XB24-15 240/80 * 494			RIBBONS S/FEEED						LASERJET II			LQ860 290/88 499		
LASER 8 8PPM * 1179			KXP1081 5.80						LASERJET IID			LQ1050 264/88 589		
LASER 8 D 8PPM * 1599			KXP1180 5.80 70						JUST RELEASED			LQ1080 290/88 639		
STARSCRIPT 8PPM * 1797			KXP1592 5.80 161						LASERJET SERIES III			LQ2550 400/133 899		
RIBBONS MONO COLOUR			KXP1595 5.80 161						CALL			TLQ4800 250/83 1499		
LC10 3.50 5.50			KXP1124 5.80 80									SQ850 600/198 499		
LC24-10/15 4.50			KXP1540 6.90 161									SQ2550 600/198 863		
FR/XB10/15 6.00 12.00												GQ5000 LASER * 859		
SHEETFEEDERS CALL														
PRINTERS = * INCLUDE ON-SITE-MAINTENANCE														
A1 PLOTTER			A3 PLOTTER			CANON			DISK DRIVES			MONITORS		
HITACHI 674-DB Floor standing A4/A1 4 pen plotter, HP7580B compatible 128K buffered RS232 interface re-plot facility, Auto pen capping Zoom-up/down facility 400mm/sec 0.025 resolution 61 built-in character sets LCD menu driven display 12 Months on-site-replacement optional 1MB buffer upgrade £2999			HITACHI 881-X8 Desk top A4/A3 4 pen plotter HP7475A compatible 400mm/sec speed RS232/Parallel interface 19 Built-in character sets 8K buffer 0.025" resolution Soft pen landing (Quiet) Weight = 6.5Kg £599			MODEL PRICE LASERS LBP4 4PPM * 849 LBP8-II 8PPM * 1347 LBP8-IIIT 8PPM * 1739 LBP8-IIIR 8PPM * 1849 SCANNERS IX-12 ROLLERBED 374 IX-12F FLATBED 885 IX-31F INTERFACE 89 OCR SOFTWARE 304 BUBBLEJETS BJ-130 519			3.5" 720K INTERNAL 59 3.5" 1.44MB INTERNAL 69 5.25" 360K INTERNAL 39 5.25" 1.2MB INTERNAL 59 3.5" 720K EXTERNAL 135 5.25" 360K EXTERNAL 69 5.25" 1.2MB EXTERNAL 95 40MB TAPE STREAMER 249 32MB HARDCARD 40MS 199 AMIGA 2ND DRIVE 3.5" 65 ATARI 2ND DRIVE 3.5" 65 AMIGA/ATARI 42MB H/D 399			MONOCROME PHILIPS 7513 12" GRN 71 MITSUBUSHI 12" GRN 65 CGA PHILIPS 8833 14" 199 EGA ECM 5400 14" 249 VGA MONO SAMSUNG 2611 89 VGA COLOUR ECM 5413 14" 259 MULTI-SYNC MTS 8800 14" 309		
W/P			DATABASE			SPREADSHEET			DTP/GRAPHS			UTILITIES		
GEM 1ST WORD+ V2 134 LOTUS MANUSCRIPT 269 MULTIMATE ADVANTAGE II 259 PROF WRITEV2.1 169 SMART WP inc Spellcheck 150 SMARTWARE II WP 150 BORLAND SPRINT 120 TURBO LIGHTNING 38 SUPERWRITER 117 WORD V5 259 WORDCRAFT V6 261 WORDPERFECT V5.1 265 WORDSTAR PROF V5.5 189 WORDSTAR 2000 - R3 245			ASPECT 377 CARDBOX PLUS V4 236 PERSONAL CARDBOX + 83 CLIPPER 305 DATAEASE V4 417 DATAFLEX DEV 399 DATAFLEX R/T 155 DATAPERFECT 280 dBASE IV 320 dBASE IV DEV 499 dBASE V1.3 179 DELTA 5 365 FOXBASE PLUS V2.1 257 FOXPRO V1 387 PARADOX 3 357 PARADOX 2 270 RETRIEVE III 99 RETRIEVE IV 209 SMART DATA MANAGER 270 SMARTWARE II DATA MAN 270 SUPER dB 170			EXCEL V2.1 257 HAL 90 INWORD 48 LOTUS 1-2-3 REL 3 325 MULTIPLAN V4 98 PC PLANNER 129 PFS PROF PLAN 126 PLAN PERFECT V5 168 QUATTRO V1 60 SIDEWAYS 35 SILVERADO FOR 123 125 SMART SPREADSHEET 195 SMARTWARE II SPREAD 225 SUPERCALC 5 238 COMMS SAGE CHIT-CHAT 69 CROSSTALK XVI 69 DATATALK 80 MIRROR III (UK) 130 MODEMS AMSTRAD MC2400 INT 139 AKHTER 8400 AUTO INT 129			TIMWORKS 126 BYLINE 126 db PUBLISHER 275 FINESSE V2 97 GEM ARTLINE 334 GEM DTP V2 233 GEM SCAN V1.1 67 PAGE ABILITY 115 ALDUS PAGEMAKER 3 450 VENTURA 2 520 WORDCRAFT ELITE V4 519 OFFICE PUBLISHER 327 3B2 V2 780 CHART 3 183 CHART MASTER 127 CONCORDE V3 420 DRAW APPLAUSE 310 FREELANCE PLUS V3 265 GEM DRAW PLUS V2.01 134 GEM PRESENTATION V3.1 267 GRAPH WRITER 265 HARVARD GRAPHICS V2.1 217 SGN MASTER 95			AGENDA 220 CLAM 105 EUREKA 78 FASTBACK PLUS 95 IZE 195 MACE UTILS 53 MAGELLAN 69 NETWORKER PLUS 155 MENUGEN 40 METRO 55 NORTON UTILITIES 45 NORTON ADVANCED 67 NORTON COMMANDER 69 NORTON EDITOR 35 OFFICE WORKS 185 OVERDRIVE 41 PC TOOLS DELUXE V5.5 84 REFEREE 37 SIDEKICK PLUS 78 SIDEKICK 36 SUPERKEY 36 ULTRALOCK 128 XTREE V2 32 XTREE PRO 60		
NOVELL			SCOOP PURCHASE											
ELS I 4 USER V2.0A 359 ELS II 8 USER V2.15 920 ADVANCED V2.15 1060 SFT V2.15 2596 NETWARE 386 V3 4020 NE1000 COMPAT CARD 139 CALL FOR FURTHER INFORMATION			COMPUTER, PRINTER & SOFTWARE BUNDLE £299 + VAT SANYO MBC 550 COMPUTER, MSDOS 2.11, 12" AMBER MONITOR, 135CPS DOT MATRIX PRINTER WORDSTAR WORD PROCESSING AND CALCSTR SPREADSHEET-HURRY WHILE STOCKS LAST											
LANGUAGES			INTEGRATED			ACCOUNTING			DELIVERY CHARGES UK MAINLAND			TERMS		
BASIC COMPILER V6 146 C COMPILER V5.1 202 COBOL COMPILER V3 358 FORTRAN COMPILER V5 202 MACRO ASSEMBLER V5.1 75 PASCAL COMPILER V4 137 QUICK BASIC V4.5 49 QUICK PASCAL 49 SORT V1.01 98 TURBO ASSEM-DEBUG 78 TURBO BASIC 120 TURBO BASIC DB TOOLS 36 TURBO BASIC ED-TOOLS 36 TURBO C PROF V2 120 TURBO C V2 80 TURBO PASCAL V5.5 80 TURBO PASCAL PROF V5.5 120 TURBO PASCAL DEV LIB 138 TURBO PASCAL DB T/BOX 36 TURBO PASCAL ED T/BOX 36 TURBO PASCAL GAMES 36 TURBO PASCAL GR/TBOX 36 TURBO PROLOG 60 TURBO PROLOG T/BOX 36			ABILITY 59 ABILITY PLUS 115 FIRST FRAMEWORK 58 FRAMEWORK III 325 LOGISTIX 115 OPEN ACCESS II PLUS 357 PFS FIRST CHOICE 78 SMART SYSTEM V3.1 350 SMARTWARE II SYSTEM 348 SYMPHONY V2 370 WORKS V1 94			NEW SAGE STERLING RANGE BOOKKEEPER 64 PAYROLL 2 129 JOB COSTING 129 ACCOUNTANT 162 ACCOUNTANT PLUS 256 FINANCIAL CONTROLLER 324 SPECIFY 3.5"/5.25"			ULTIMATE BUSINESS MACHINES LTD 23 ALBION ROAD EARBY COLNE LANCASHIRE BB8 6PZ (0282) 844044 VISA & ACCESS FAX (0282) 843840			All prices exclude VAT & Delivery charges. Strict Cash with Order. Visa/Access welcome. Cheques made out to Ultimate Business Machines Ltd. Official orders from Government, PLC's & Educational bodies accepted. Callers welcome but by appointment only		

COMMODORE PC20 STARTER PACK

Mono	£679
CGA	£799
VGA Mono	£859
VGA Colour	£959
Including 12 months ON-SITE warranty	

OPUS

The Classmate Plus		
Inc. 9 Pin Seikosha dot matrix printer		
Mono	£779	
VGA	£1059	
	Mono	VGA
Opus III HD 30Mb	£899	£1299
Opus AT (386) 40Mb	£1699	£1999
Opus 7 60Mb	£2699	£2999

OLIVETTI

PCS86	MONO	VGA
Single Drive	£589	£769
20Mb	£879	£1059
PCS286		
20Mb	£1059	£1259
40Mb	£1149	£1299
PORTABLES	EGA	VGA
M211 20Mb	£2049	£2199
M211 40Mb	£2349	£2499

ZENITH PORTABLE PC

Zenith Supersport 286, 20Mb	£1999
Zenith Supersport 286, 40Mb	£2499
Zenith Supersport 386SX, 40Mb	£3399
Zenith Supersport 386SX, 100Mb	£3599
Zenith Supersport E, 20Mb	£2499
Zenith Minisport 8Mhz, 1Mb Ram	£999
Zenith Minisport 8Mhz, 2Mb Ram	£1299

SAMSUNG

Samsung 3000 20Mb (base only)	£749
Samsung 6000 20Mb (base only)	£1079
(ADD £89 FOR MONO MONITOR & £300 FOR VGA)	
Samsung S5200 Portable	£1925

COMMODORE AMIGA 500 CLASS OF THE 90'S PACK

512K, 3.5" drive, midi interface, mouse, modulator, workbench, Amiga Logo, BBC Emulator V2, Deluxe Paint II, Superbase, Maxiplan, Publishers Choice, Midi Recording Studio, 10 Blank Disks, Mouse	£450
Microbatics 512K Mem. expansion for Amiga	£87
External 3.5" Drive for Amiga	£78
Rendale Genlock for A500	£252
Rendale Genlock for A2000	£696

AKHTER

LC286-16	
80286, 16Mhz, 1Mb, 40Mb Drive, 1.2Mb & 1.44Mb Floppy, Mouse, DOS, Windows, Small Footprint, 14" VGA Colour Display.	
PLUS 12 Months ON-SITE maintenance contract	£1359
LC386-25	
80386, 25Mhz, 2Mb, 40Mb Drive, 1.2Mb & 1.44Mb Floppy, Mouse, DOS, Windows, Small Footprint, 14" VGA Colour Display.	
PLUS 12 Months ON-SITE maintenance contract	£1959

PRINTERS

Brother HL8PS, laser printer, 8PPM	£2796
Canon Bubblejet BJ130, inkjet printer, 360dpi	£595
Canon LPB-4, laser printer, 4PPM	£949
Citizen 120D, 9 Pin dot matrix	£129
Hewlett-Packard Laserjet IIP, 4PPM laser	£999
Hewlett-Packard Deskjet Plus, 300dpi inkjet	£649
Juki 7100, 24 Pin dot matrix	£399
Panasonic KXP1124, 24 Pin dot matrix	£250
Panasonic KXP1540, 24 Pin, 136 col	£449
Panasonic KSP1180, 9 Pin, 80 col	£179
Qume WP, 300dpi LCS, 6PPM	£815
Qume CrystalPrint II, 300dpi LCS, 6PPM	£1150

The items listed here represent a small proportion of the goods we sell. Please call for a quotation on any goods not listed. All prices subject to change without notice. All offers subject to availability. Government official orders accepted.

CAB SOLUTIONS ARE MAIL ORDER ONLY

CAB

SOLUTIONS LIMITED

28 RODEHEATH
STONEYGATE ROAD
LUTON, BEDS
LU4 9XA
TEL: 0582-591718

CAB Solutions are mail order ONLY and as such we pass on the benefits of our "low overheads" with highly competitive pricing.

Please call our mail order hotline with your Access or Visa number OR

Send a cheque or postal order (do not send cash) to the above address

Please allow £5.00 P&P

All prices EXCLUDE VAT

E&OE

● AMSTRAD PPC512

0279 454555
£499
8086 CPU • LCD CGA screen •
512K RAM • Single/twin floppy drive(s)

Amstrad has a finger in every pie and the portable PC compatible market is no exception. The entry level machine is the PPC512, featuring a full sized keyboard, but poor screen, not much memory and not much else to recommend it. Look elsewhere...

Power **

Value for money **

● AMSTRAD PPC640

0279 454555
£799
8086 CPU • LCD CGA screen •
640K RAM • Double drives • Internal V21, V22, V22bis, V23 modem

When first launched, the media recommended the machine as being worth the price for the built-in modem alone. Although quite large and not very pretty, the Amstrad is nonetheless a very usable portable computer at a fantastically low price. Very worthy of your consideration and money.

Power ****

Value for money ****

● BULL PC AP-L

0422 212781
From £1,395
80286 CPU • 1Mb RAM • 20/40Mb hard drive

Fast, comparatively lightweight portable from Bull, featuring a megabyte of RAM and choice of hard drives. Screen display reasonable.

Power ***

Value for money ***

● COMPAQ PORTABLE II

01-940 8860
From £2,395
80286 CPU • 640K RAM • 20Mb hard drive • 360K floppy

Expensive, under-specified, portable from a dealer with a reputation for high quality and matching high prices. Compaq machines are rugged, but demand fat wallets.

Power ***

Value for money **

● COMPAQ PORTABLE III

01-940 8860
From £2,995
80386 CPU • 640K RAM • 20/40Mb hard drive • 1.2Mb floppy

Mid range Compaq 386-based portable featuring a choice of drives but lacking sufficient RAM for a machine of these specifications - why cut corners? Rea-

sonable screen display and rugged construction.

Power ****

Value for money **

● COMPAQ PORTABLE 386

01 940 8860
From £4,695
80386 CPU • 1Mb RAM •
40/100Mb hard drive 1.2Mb floppy

Top of the range Compaq portable with an optional 100Mb hard drive for those seeking power computing with a capital P. Also featuring a 1.2Mb floppy and a full megabyte of RAM.

Power ****

Value for money ****

● COMTECH TECHNOLOGY 286LT

0964 615100
From £1,995
80286 CPU • 1Mb RAM • 32Mb hard drive • 1.44Mb floppy

Portable from Comtech UK with the unusual distinction of having a gas plasma rather than LCD display. Plenty of features such as high density 3.5-inch drive and 32Mb hard drive ensure the desirability of this machine.

Power ****

Value for money ***

● EPSON PC AX

0442 61144
£2,749
80286 CPU • 640K RAM • 20Mb hard drive

Very popular and well made portable from printer manufacturer Epson. The PC AX features a paper white monitor and is light and very portable.

Power ***

Value for money ***

● EPSON FD

0442 61144
£1,199
V30 CPU • 640K RAM • Single/twin floppies

One of the cheaper Epson portables but still with a heavy price tag this machine features a fast V30 central processor and is available with a choice of floppy drives (also available in a hard drive 'HD' version).

Power **

Value for money **

Ladbroke Computing International

ST World
'Best Dealer' 1989



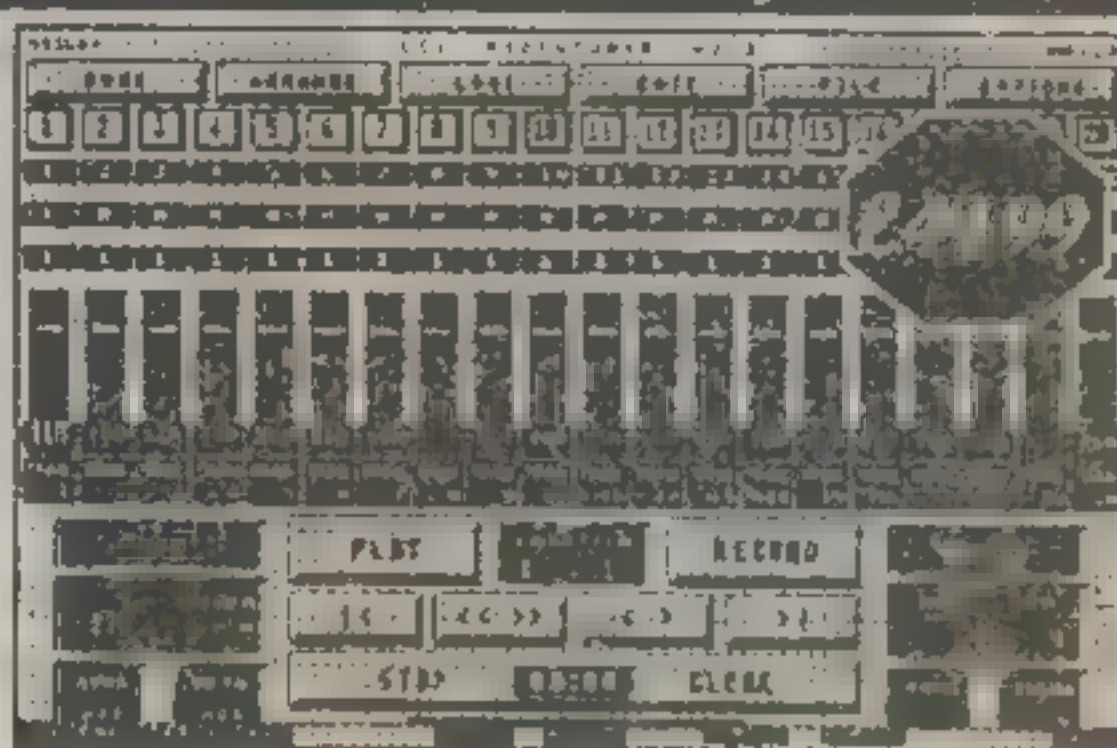
33 Ormskirk Rd, Preston, Lancs, PR1 2QP
Open Mon. to Sat. 9:00 am to 5:00pm
Dealer enquiries welcome.

Phone us for best prices. We will try to match any price.

We were voted Best Dealer by the readers of ST World because we give our customers the best available service. All Software and Hardware is fully tested prior to purchase. All prices include VAT. Delivery, in Mainland UK, is free on orders over £100 (add £5 for courier delivery). All prices are correct at copy date, 18/04/90 and are subject to change without prior notice. All prices are accurate while stocks last. Phone for up to date prices.

Midistudio 20 track ST Midi sequencer

Midistudio is an attractively priced, 20 track Midi Sequencing package. It can record up to 682 bars per phrase (pattern) on up to 100 phrases. Any phrase can be placed on any track. Tracks can be soloed and muted and tracks and phrases can be named. Program numbers can be displayed in a variety of ways including 0-127, 1-128, in banks from all-b88 or m01-b64. The Desk features sliders to set relative volumes on each track and you can even do a mix on the fly. Midistudio also has a clock to display the length of the last playback. Stop time note edit functions are available including copy, split, merge, append, transpose, velocity editing (including a humanize function), full controller editing and different levels of quantizing. Midistudio works in medium and hi res. Demo disk £3.99. Now compatible with STE.



IMG scanner Scan at up to 1000 Dpi

The IMG scanner is a realistic, low cost scanner which can offer high quality graphics digitising for a tenth of the cost of other scanners. This simple unit plugs into the cartridge port of the ST and accepts scanned information via optical cables which fix easily to the head of any Epson compatible dot matrix printer. The software allows grey scales to be replaced with colours, 4 in medium resolution and 16 in low resolution and offers scanning resolutions of 75, 150, 216, 300, 360 and 1000 dots per inch horizontally. Best results are achieved with photocopies. Greater than screen resolution images are saved in IMG file format and can be edited with any compatible art package. Screen resolution images can be saved in Raw data, Degas or Neochrome formats and edited with compatible art packages.

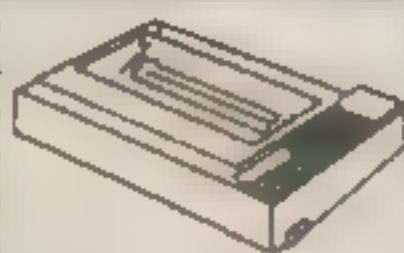


Midistudio Master 30+ new features £129.99

Low resolution demonstration disk £3.99

Best Selling Printers

Star LC-10.	140/36cps	£ 169.99 *
Star LC-10 Mk II.	180/45cps	£ 189.99 *
Star LC-10 Colour.	7 colour	£ 209.99 *
Citizen 1200.	120cps	£ 134.99 *
Star LC-24/10.	170/57cps	£ 239.99 *
Citizen Swift.	192/64cps	£ 319.99 *



Star Professional Series Printers

Star FR-10.	9 pin, 300cps draft, 76cps NLQ.	£ 527.99 *
Star FR-15.	15" carriage version.	£ 688.99 *
Star XB-24/10.	24 pin, 80 cps SLQ, LQ.	£ 688.99 *
Star XB-24/15.	15" carriage version.	£ 907.99 *
Colour upgrade for Star XB & FR range.		£ 99.99
Star Laser Printer 8, 1 Mb RAM.		£ 2287.35
Star Laser Printer 8DB, Double bin version.		£ 2977.35
Atari SLM804 Laser with 90 days on site warranty.		£ 1099.99

* All these printers come complete with Centronics cable which is compatible with ST, Amiga and PC's (phone for others). All printers are top quality products for the UK.

ST & Amiga Disk Drives

Why pay pennies less for an inferior drive when you can get quality Cumana drives at these remarkable prices.
Cumana 3.5" CSA 354. (ST) £84.99
Cumana 1Mb, internal. (ST) £69.99
Please note, ST's case requires modification for this internal drive.
A/B boot switch, fitted. (ST) £24.99
Cumana 3.5" CA X 354, disable switch etc. (Amiga) £69.99



ST & Amiga Hard Drives

Megafile 30 *	(ST)	£399.99
Supra 30	(ST)	£474.99
Third Coast 65Mb	(Amiga)	£659.99
Vortex 40Mb	(Amiga)	£499.99



Ladbroke Computing Hard drives

We have a range of high quality ST hard drives at affordable prices. All have a minimum specification of full metal case with push button on/off switch mounted on front, 60 watt PSU, Autopark mechanism and external, push button DMA device No selection. The controller is low power and full SCSI. The software allows up to 14 GEM partitions.

40HD 42Mb formatted, 11Ms, 64K on board cache.	£ 549.99
50HD/40 48Mb formatted, 40Ms average access time.	£ 499.99
50HD/28 48Mb formatted, 28Ms average access time.	£ 524.99
60HD 61Mb formatted, 24Ms average access time.	£ 619.99
85HD 84Mb formatted, 24Ms average access time.	£ 699.99
140HD 140Mb formatted, 20Ms average access time.	£ 949.99

Phone for Larger capacity drives.

Monitors & Peripherals

Atari SM124 Mono	£109.99 *	Joysticks from	£ 4.99
Atari SC1224 Colour	£279.99 *	Portfolio add-on's from	£ 39.99
Philips 8833 Colour	£249.99 *	Trak ball (ST / Amiga)	£ 19.99
Philips 8802 Colour	£239.99 *	Mouse mats from	£ 5.99
Philips 15" PST, remote, Scart		Mouse/joystick extension	£ 5.99
input, Tv with 60 tuner presets, Amiga modulator			£ 19.99
timer and teletext	£259.99	Hawk scanner	£ 1249.99

* Deduct £10 if bought with computer. Scart cable included.

Repair Centre & Upgrades Ex stock

512K STFM RAM Upgrade fitted.	£ 74.99 *	512K STFM RAM upgrade, kit.	£ 49.99 *
512K STM RAM Upgrade, fitted.	£ 74.99 *	512K STE SIMM's, SIP's	£ 49.99 *
512K populated ST board, fitted.	£ 109.99	512K populated ST board, kit	£ 99.99
2Mb populated ST board, fitted.	£ 224.99 *	2Mb populated ST board, kit	£ 199.99 *
2Mb STE SIMM's, SIP's, Kit	£ 239.99 *	4Mb STE SIMM's, SIP's, Kit	£ 489.99 *
STFM Blitter chip, fitted	£ 49.99 *	STFM Blitter chip, kit	£ 39.99 *
512K unpopulated Amiga board	£ 24.99	512K populated Amiga board	£ 64.99
512K unpopulated Amiga board+clock	£ 34.99	512K populated Amiga board+clock	£ 74.99

* Please check configuration before ordering. Our Atari trained engineers can repair all hardware, including Amigas, in minimum time at competitive prices. Fitting prices quoted for machines not previously tampered with. All upgrades and repairs carry our 3 months parts and labour guarantee.

Networking & Mac Emulation

- Network up to 32 ST's.
- Up to 500 Ft between ST's.
- 31K Baud data transfer rate.
- Full data correction.
- File locking.
- Networking permissions.
- Allows upto 12 hard/RAM disk partitions.
- Turn your ST into a Mac Plus.
- Reads and writes to Mac disks.
- Supports most Macintosh Software.
- Supports Hard drive and second floppy drive.
- Compatible with STE, Stacy.
- 30% bigger screen area than Mac Plus.
- Supports SLM 804 Laser printer.

► SGSnet Starter kit £ 149.95
► SGSnet add-on kit £ 99.95

► Spectre GCR £ 284.99
► 128K Mac ROMs phone

Entertainment packs

520 STE	£369.99
520 STFM Discovery pack	£279.99
Atari LYNX	£169.99
1040 STE	£459.99
520 STE upgraded to 1Mb	£439.99
Amiga Batman pack	£369.99
Amiga Flight of Fantasy	£379.99
Amiga Batman + pack	£399.99

Games for the Lynx: Electrocop, Blue Lightning, Gates of Zendocon, Chips challenge. £29.99 each.

All upgraded STE's include Hyper pack which includes Hyper Paint art package, Hyper draw vector drawing package, Borodino strategy game and Metacornco Basic.

Batman + pack includes A500 Batman pack, mouse mat, joystick and the Tenstar games pack with Photon paint.

Quality 3.5" Disks

Quantity	Unbranded		Sony Branded
	Loose	Boxed	Boxed
10	£6.99	£7.99	£9.99
100	£64.99	£74.99	£89.99

All disks are Sony, Maxcell or Kao and carry an unconditional lifetime guarantee. Please add 60p P&P for each pack of ten disks.

Connectors & Dustcovers

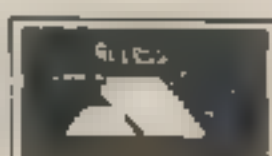
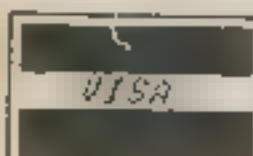
ST Centronics lead	£14.99	Monitor covers from	£4.99
Atari DIY Monitor lead	£5.99	LC-10 printer cover	£7.99
Pair of Midi leads	£7.99	Hard drive cover	£4.99
Amiga Scart with sound	£14.99	ST cover	£3.99
ST Scart	£14.99	Amiga A500 cover	£3.99
8 bit Printer interface	£29.99	Mega 2 cover	£7.99
Atari DMA cable	£15.99	Disk drive cover	£2.99

Disk boxes from £4.99. Phone for care kits.

Business & DTP Systems

Mega ST1 + SM124	£ 599.99
2Mb upgraded 520STE	£ 549.99
4Mb upgraded 520STE	£ 749.99
Portfolio (pocket PC)	£ 224.99
Atari PC4 (80286)	£ 1349.99
Atari PC5 (80386)	£ 2069.99
DTP Mega 2 pack	£ 1674.99
DTP Mega 4 pack	£ 1999.99
A4 Flat bed scanner	£ 449.99

This high quality 200dpi flat bed scanner is also a thermal printer and photocopier. It can scan high resolution images in up to 16 grey scales. Software runs on Amiga and ST (ST software includes editor) and requires 1Mb of memory. This is probably the most cost effective piece of office equipment you could own. Centronics cable included.



(0772) 203156

Fax 561071

Ladbroke Computing International is a trading name of Walton Marketing Limited.

To assist us in processing your order, please quote this code:

SSI4.3

LOOK! AMAZING OFFERS

100% Certified Error Free

POST NOW ONLY £3

3 1/2" DS/DD

40p

INCL LABELS

5 1/4 DS/DD - 26p 5 1/4 DS/HD - 50p 2 DS/HD - £1.10

RAM PACK £57

FREE!! CLEANING KIT WHEN YOU SPEND £50+ ON DISKS

SAME DAY DESPATCH

AMIGAS	LOOK	ATARIS
BATPACK...£358	JOYSTICKS	LYNX£160
FLIGHT OF FANTASY...£359	Black Cruiser £7.50	DISCOVERY£260
CLASS OF THE 90'S.....£493	Zipstick £10.80	POWER...£350
3 1/2 External Drive.£59	Quickshot £5.50	3 1/2 External Drive with PSU.....£68
	Mouse Mat £2.99	

ADD £3.00 P&P per disk order. ADD £9 next day delivery.
On Amigas/Ataris. ADD £2 P&P for joysticks. ALL PRICES INCLUDE VAT

CALL OR SEND CHEQUE TO BCS LTD
849 DITCHLING ROAD, BRIGHTON BN1 6JJ

0273 506269 24 hours 7 days

BUILD IT YOURSELF!

MOTHERBOARDS	CASES	DISPLAY ADAPTORS
XT TURBO 12MHz, V20, 0k, 8 slots. Small size, takes 256k x 4 DIL. £62.10 + £4.50 p&p	XT/AT CASE Space for three 5.25" floppy/hard disk drives and one 3.5" drive. £44.50 (+ £6 p&p) 180W PSU £44.85 (+ £3 p&p) (Suits budget case) DE-LUXE CASE Same disk space but prettier! Speed display. £65.00 (+ £6 p&p)	UNIVERSAL VGA This board auto-switches between 8 and 16 bit, drives mono, EGA and VGA monitors, (in native mode) and supports all standard VGA modes. Easy upgrade to extended VGA to give 1024 by 768. £137.00 (+ £2 p&p) DUAL CGA/HERC Auto-switch, plus port for printer. £38.00 (+ £2 p&p) 102 keyboard £46 + £6 p&p
AT TURBO 12MHz, 0k, up to 4 M on board. Seven slots, takes 256k x 1, or 256k x 4, or 1M x 1. £158.00 + £4.50 p&p	MINI TOWER CASE As DE-LUXE case but desk-top tower style. £72.50 (+ £6 p&p) 200W PSU £69 + £3	I/O ADAPTORS RS232 short card £16.10 (+ £2 p&p) SERIAL/GAME/ PARALLEL CARD Sockets for serial 2 £14.50 (+ £2 p&p) FLOPPY CONTROLLER for XT or AT, 360, 720, 1.2, 1.44. Two drives 3.5" or 5.25". £24 (£2 p&p)
AT TURBO PLUS 12MHz, up to 4M on board. Eight slots, takes 256k x 4 or SIPs. EMS fitted. £188.00 + £4.50 p&p	"SKELETON" SYSTEMS These systems include case, 180W PSU and motherboard, fully assembled. You add memory, keyboard, display, floppy drive and adapter cards. 12MHz XT £155 12MHz AT £250 16MHz AT £305 Carriage £10	
PC-DIY BOOK If you are not sure how to go about building your own PC, this book is for you. 112 pages full of DIY tips for £7.95 including postage. (No VAT) VAT is INCLUDED in all our prices. Why not telephone or write for our FREE catalogue?		

BLACKMORE ELECTRONICS LTD

4 THE PLOCKS
BLANDFORD FORUM
DORSET DT11 7AA

Telephone: (0258) 451347
Fax: (0258) 456046

ALL MAJOR CREDIT CARDS ACCEPTED BY POST, TELEPHONE OR FAX

● NEC UK POWERMATE PORTABLE

01-924 1244
From £2,795
80286 CPU • 640K RAM • 42Mb hard drive

Superior portable from NEC featuring 640 x 480 LCD screen with backlight, three expansion slots and a CPU speed of 16MHz. Altogether a well specified, high quality computer.

Power ★★★

Value for money ★★★★★

● OLIVETTI M15

0908 374900
From £1,105
80C88 CPU • 512K RAM • 20Mb hard drive

The Olivetti range of much coveted portables are well constructed, rugged and compare favourably with the price of machines from rival manufacturers. Unfortunately, this machine suffers from having only 512K of RAM which simply isn't enough for today's quality software.

Power ★★

Value for money ★★

● SCHNEIDER PORTABLE AT

0604 766572
£1,995
80286 CPU • 640K RAM • 20Mb hard drive

Recently suffering much criticism over its Euro PC, Schneider is nonetheless a manufacturer of reasonable quality, cheap computers. The Portable AT is fully specified and follows the Schneider tradition of small prices.

Power ★★★★★

Value for money ★★★★★

● SMT SUPER GOLF

01-785 2411
From £3,499
80286 CPU • 640K RAM • 40/100Mb hard drive

Portable or a German car? This machine shares a name and a level of construction hard to find elsewhere. Featuring an optional 100Mb hard drive, the Super Golf is a worthy of power user consideration.

Power ★★★★★

Value for money ★★★★★

● TANDY 1400FD

0922 710000
£995
V20 CPU • 768K RAM • Twin floppies

A portable computer with a price tag unmatched outside the Amstrad stable, the 1400LT has a CGA-compatible LCD

screen and can be plugged into a colour monitor via its built-in port.

Power ★★★

Value for money ★★★★★

● TANDY 102

0922 710000
£299
80C85 CPU • 24K RAM • Optional disk drive

The journalist's choice. Not PC compatible but very compact, very light and with good word processing software built in, this computer should be considered by those needing to prepare documents on the move. There's even a built-in modem so you can transfer files while at airports, train stations, in hotel rooms etc.

Power ★★

Value for money ★★★★★

● TOSHIBA T1600

0932 841600
£3,195
80C286 CPU • 1Mb RAM • 20Mb hard drive

Mid range Toshiba 286 featuring a CMOS low power CPU, hard drive and memory expandable to five megabytes. Rugged construction and good quality screen display.

Power ★★★★★

Value for money ★★★★★

● TOSHIBA T5200

0932 841600
From £4,995
80386 CPU • 2Mb RAM • 40/100Mb hard drive

Top of the range Toshiba 386-based portable. Memory is expandable to an enormous eight megabytes, there's a 100Mb hard drive option, 2Mb RAM as standard and two expansion slots.

Power ★★★★★

Value for money ★★★★★

● TOSHIBA T1000

0932 841600
£795
80C88 CPU • 512K RAM • Floppy drive

Entry-level portable PC. 512K RAM as standard expandable to 1.2 megabytes (if you can afford the DRAMs). The machine has the unusual distinction of having MS-DOS contained on ROM rather than booted from floppy.

Power ★

Value for money ★★★★★

● VICTOR V286P

0494 461600
£2,499
80286 CPU • 1Mb RAM • 30Mb hard drive

Always

Reasonable

Reliable

And

No Fuss

COMPUTERS**NOW IN STOCK
MGT's SAM COUPE**

Sam Coupe.....	£169.00
Sam Coupe + 1 Disk Drive.....	£249.00
Sam Coupe + 2 Disk Drive.....	£329.00
256K Add-on Memory.....	£39.00
Sam to Scart Cable.....	£9.95
Technical Manual.....	£8.95

AMIGA**AMIGA A500 BATMAN PACK**

Includes Batman The Movie, New Zealand Story, F18 Interceptor, Deluxe Paint II, TV Modulator
RRP £399.00

OFFER PRICE.....£375.00

BATPACK + 10 STAR PACK

£395.00

BATPACK + A501 RAM UPGRADE

£459.00

A500 FLIGHT OF FANTASY PACK

Inc Escape from the Planet of the Robot Monsters, F29 Retaliator, Rainbow Island, Deluxe Paint II
RRP £399.99

OFFER PRICE.....£375.00

A500 CLASS OF THE 90's PACK

Complete Educational Package
Extensive software,
too much to list

Total Value - £1002.00

RRP £573.00

OFFER PRICE.....£516.00 Inc VAT

AS ABOVE + A501 RAM UPGRADE

£595.00

ATARI**ATARI 520 STE POWER PACK**

Includes 20 games, music
software, business organizer,
Hi-Soft basic Hyperpack
RRP £399.00

OFFER PRICE.....£360.00

520 STFM DISCOVERY PACK

Inc First Basic, 4 games, Neochrome, STOS
games creator and ST Tour.
RRP £299.00

OFFER PRICE.....£275.00

1040 STE + HYPERPACK

RRP £499.00

OFFER PRICE.....£460.00

1040 STE PROFESSIONAL PACK

This includes Word Up, Superbase Personal, K
Spread 3, ST Basic Source and Tutorial Book.
RRP £499.99

OFFER PRICE.....£460.00

ACORN**MASTER 128**

RRP £503.35

OFFER PRICE.....£450.00

ARCHIMEDES A3000 Base

RRP £688.00

OFFER PRICE.....£620.00

LEARNING CURVE PACK BASE

RRP £803.85

OFFER PRICE.....£723.46

A3000 COLOUR MONITOR

RRP £253.00

OFFER PRICE.....£225.00

AMSTRAD**AMSTRAD**

PCW 9512

(Inc Free Autosheet Feeder)

+ Daisywheel printer

RRP £573.00

OFFER PRICE.....£516.00

MONITORS**PHILIPS CM8833**

Colour Med-res

RRP £299.00

OFFER PRICE.....£235.00

Lead ST/Amiga.....£9.95

Please state which

COMMODORE 1084S

Med-res Colour (Inc Amiga lead)

RRP £299.00

OFFER PRICE.....£235.00

DISK DRIVES**AMIGA**

1Meg 3.5" Slimline

daisychainable, disable switch

OFFER PRICE.....£74.95

ATARI ST

1 Meg 3.5" Slimline

Joystick Powered

OFFER PRICE.....£69.95

OFFER PRICE with PSU.....£79.95

UPGRADES**A501**

1/2 Meg upgrade with clock card

RRP £149.99

OFFER PRICE.....£99.00

1/2 Meg with clock.....£75.00

1/2 Meg without clock.....£65.00

PRINTERS**CITIZEN SWIFT 24 PIN DMP**

Draft 192, LQ60, Friction/

tractor feed

RRP £441.00

OFFER PRICE.....£299.00

Price includes Amiga ST/PC lead,

2 year warranty

CITIZEN 180E 9 PIN DMP

Draft 150 NLQ 36

£165.00

Including Amiga/ST/PC lead

2 year warranty

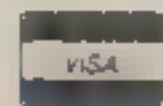
AMSTRAD 3500

DI Serial Parallel 24 Pin

Inc Parallel cable

OFFER PRICE.....£235.00

- Credit card 24 hour facility
- Credit cards not debited until goods despatched
- Offered subject to availability and price change
- Same day despatch on stock items
- Amstrad authorized business dealer
- Ring for price lists
- Large selection of games on most formats
- Large selection of business software IBM/PC compatibles

**IBM/PC COMPATIBLE****Amstrad Advanced System Centre****AMSTRAD PC****PC 1512**

SD MONO.....	£442
DD MONO.....	£549
SD COLOUR.....	£569
DD COLOUR.....	£639

PC 2086

SD MONO.....	£619
DD MONO.....	£723
HD MONO.....	£930
SD COLOUR.....	£778
DD COLOUR.....	£878

12" HI-RES COLOUR

SD £826 - DD £930 - HD £1,137

14" HI-RES COLOUR

SD £930 - DD £1,033 - HD £1,240

PC 2286

NEW LOW PRICES INCLUDE 12 MONTH ON SITE MAINTENANCE

	OUR
DD Mono 12".....	£930
HD Mono 12".....	£1033
DD Colour 14".....	£1085
HD Colour 14".....	£1189
DD Colour 12" Hi Res.....	£1137
HD Colour 12" Hi Res.....	£1241
DD Colour 14" Hi Res.....	£1241
HD Colour 14" Hi Res.....	£1344

PC 2386

HD Mono 12".....	£2086
HD Colour 14".....	£2224
HD Colour 12" Hi Res.....	£2275
HD Colour 14" Hi Res.....	£2379

AMSTRAD PORTABLES

PPC 512.....D.....	£412
PPC 512.....DD.....	£568
PPC 1640.....D.....	£516
PPC 1640.....DD.....	£671

COMMODORE**AUTHORISED BUSINESS DEALER**

INTRODUCING:

STARTER PACK WHICH INCLUDES:

- ★ Mavis Beacon Teaches Typing
- ★ The Secretary Bird Integrated Package
- ★ MS DOS Introduction Disk
- ★ Explanatory Video

PC10SD OUR

Mono 12".....	£585
Colour 14".....	£745
Mono VGA 14".....	£775
Colour VGA 14".....	£875

PC10DD

Mono 12".....	£640
Colour 14".....	£800
Mono VGA 14".....	£826
Colour VGA 14".....	£930

PC20HD

Mono 12".....	£826
Colour 14".....	£980
Mono VGA 14".....	£1033
Colour VGA 14".....	£1135

PC30HD

Mono.....	£1230
Colour EGA.....	£1445

All Commodore prices include 12 mths next day on-site maintenance

EDUCATION &
GOVERNMENT
ORDERS
SUPPLIED -
RING FOR
SPECIAL RATES

WHY NOT
CALL IN AND
SEE US

Mail Order Send Cheques/PO to
ARRAN COMPUTERS

17A LOWER HILLGATE STOCKPORT
SK1 1JQ

TELEPHONE 061 480 3975/061 429 8817

Fax 061 429 8257

PRICES INC. VAT

P&P FREE UK ONLY

OVERSEAS ADD £3.00

NEXT DAY COURIER ADD £5.00

A
R
R
A
NA
R
R
A
NA
R
R
A
NA
R
R
A
N

Fully featured portable from rising star Victor with a gas plasma display.

Power ★★★

Value for money ★★★★★

● ZENITH SUPERSPORT 286

0628 668588
From £2,665
80C286 CPU • 1Mb RAM •
20/40Mb hard drive

Quality portable from Zenith featuring novel 'under the screen' drive arrangement providing easy access to floppy.

Power ★★★★★

Value for money ★★★★★

● ZENITH TURBOSPORT 386

0628 668588
£3,320
80386 CPU • 1Mb RAM • 40Mb
hard drive • 1.4Mb floppy

Top of the range Zenith 386-based portable featuring a novel battery management system to conserve power.

Power ★★★★★

Value for money ★★★★★

MODEMS

The last two or three years has seen a massive up-surge in the use of computer communications due to a relaxation of British Telecom controls and advances in technology.

● AMSTRAD 2400 (INTERNAL)

0279 454555
£199
V21 V22 V23 V22bis

Amstrad modems are held in high esteem throughout the industry for being cheap yet fully specified and reliable. The 2400 internal modem is no exception offering a large range of speeds at an amazing price. Fully recommended.

Power ★★★★★

Value for money ★★★★★

● AMSTRAD 2400 (EXTERNAL)

0279 454555
£249
V21 V22 V23 V22bis

As above but in a fitted case for use with any RS232 bearing computer. Again, fully specified and incredibly

cheap. Recommended.
Power ★★★★★

Value for money ★★★★★

● MIRACOM WS2000

0473 233888
£108
V21 V23

Entry-level modem which has enjoyed a high level of popularity amongst those wishing to try computer communications without a large investment. The WS2000 is a manual so you'll have to twiddle the knobs to get anything from it, but it's reliable and very cheap.

Power ★★

Value for money ★★★★★

● MIRACOM WS3000

0473 233888

£395
V21 V22 V23 V22bis

High end Miracom modem popular amongst corporate users featuring the fast 2400/2400 full duplex mode, full Hayes compatibility and a full complement of indicator LEDs.

Power ★★★★★

Value for money ★★★★★

● MIRACOM WS4000

0473 233888
From £159
V21 V23 (optional)V22

Upgraded, full automatic version of the very popular WS2000 modem. The '4000 features full Hayes compatibility, LED indicators and complete software control.

Power ★★★★★

**NEXT WEEK THE SHOPPING
EXPRESS BUYER'S GUIDE TO
ST ESSENTIALS**

PAPER

Best quality wood-free - LOW DUST spec.

Type & Weight	Box	£/box
11/9.5 60gsm Fanfold Listing	2000	£13.95
11/9.5 70gsm Microperforated	2000	£15.95
11/9.5 85gsm Letter Quality	1000	£10.95
A4 Size 70gsm Microperforated	2000	£19.95
A4 Size 85gsm Letter Quality	1000	£11.95
11/9.5 NCR 2-part Plain	1000	£21.95
11/9.5 NCR 3-part Plain	700	£24.95
11/9.5 NCR 4-part Plain	500	£24.95
A5 Size 80gsm Letter Quality	1000	£11.95

RIBBON REFRESH

Our own invention - Carbon in a Can!

Simply lift off ribbon casing & apply fresh carbon to your ribbon - double its life in seconds!

One can does 20-100 ribbons

still just **£8.95**



**CASPELL
COMPUTER**
of POOLE

**ALL PRICES
INCLUDE VAT**

DISKS

25 x 5.25" Branded Quality	£13.95
50 x 5.25" Branded Quality	£24.95
25 x 3.5" 135tpi Branded	£24.95
50 x 3.5" 135tpi Branded	£47.95

LABELS

Address Labels 3.5" x 1.5" 1 or 2-across
£3.75 per 1000 + Carriage

RIBBONS

PRINTER	CODE	£
Amstrad	No.	
PCW8256 Fabric Longlife	2741	C
PCW8256 Colours	2741C	C
PCW8256 Multistrike Films	2741MS	B
PCW 9512 Fabric Longlife	2746	C
PCW9512 Colours	2746C	C
PCW9512 Multistrike Films	2746MS	B
DMP2000/2160/3000/3160	2482	A
DMP 4000	2426	D
LQ3500	2741LL	C
Other		
Brother HP15/25/40	2698MS	B
Brother M1009/1109/1209	2412	C
Commodore MPS-803	2412	C
Canon PW1080A	2223	C
Citizen 120D/180E/LSP-10	2488	B
Citizen MSP-20/40/50	2477	C
Citizen HQP-45	2478	E
Epson FX/MX/RX-80	2273	B
Epson LX/GX-80	2454	B
Epson LQ-500	2477	C
Epson EX-800	2774	C
Juki 6100 Daisywheel	2563MS	B
NEC Pinwriter P1/P2	2254	C
NEC Pinwriter P6+/P7+	2870	D
NEC P2200	2844	C
Panasonic KX-P1081	2228	C
Panasonic KX-P1180	2804	C
Seikosha GP100	2317	B
Seikosha SL80	2741	C
Seikosha 500/550	2236	C
Shinwa CP-80	2698MS	C
Star LC-10	2861	B
Star LC-10 Colours	2869	E
Star LC24-10	2868	B
Star NL-10	2761	C

RIBBON PRICES inc VAT & post

	1-off	2-off	5-off
Price Band A	£2.95	£5.75	£12.95
Price Band B	£3.95	£7.45	£16.95
Price Band C	£4.95	£8.95	£19.95
Price Band D	£5.95	£10.95	£22.95
Price Band E	£7.95	£14.95	£34.95

HOW TO ORDER

DELIVERY	PAPER (any quantity)	LABELS (any quantity)	EVERYTHING ELSE
UK Mainland:	3/5-day: £5.00 24-hour: £10.00	3/5-day: £2.50 24-hour: £10.00	3/5-day: FREE 24-hour: £10.00
Overseas:	Postage at cost. Callers (of course!) FREE		

Order by FREEPOST - Cheque/PO/Visa/Access
Caspell Computer, Dept NCE, FREEPOST, Poole, Dorset BH15 2BR

Order by PHONE - VISA/ACCESS WELCOME!
(0202) 666155 (24hr)

CALLERS WELCOME at our Sales Centre -
Unit 2A, Sterte Ind Est, Sterte Rd, Poole

next to the hump-
back bridge!

**1500
BOOKS!
LIST 50p**

POSTSCRIPT CARTRIDGE FOR HP II / IID / IIP & COMP. INC 2 MEG RAM BOARD ONLY £895.00 ex VAT

COMMODORE

Amiga

CLASS of the 90's

BUSINESS /
EDUCATIONAL PACK

INCLUDES

KINDWORDS 2.0
WORDPROCESSOR
PAGESETTER DTP PACKAGE
DELUXE PAINT II ART PACK
MAXIPLAN SPREADSHEET
SUPERBASE PERSONAL
DATABASE
BBC SOFTWARE EMULATOR
LOGO LANGUAGE
BASIC LANGUAGE
DR. T's RECORDING STUDIO
MIDI MASTER INTERFACE
TUTORIAL PACK
WORKBENCH / KICKSTART
DESKTOP UTILITIES
MOUSE AND MOUSE MAT
10 BLANK 3.5" DISKETTES
EDUCATIONAL SUPPORT FILE
— BONUS GAME —
* F-18 FLIGHT SIMULATOR *

TOTAL RRP --- £1029.00

OUR PRICE
£515.00

A500 BAT PACK

INCLUDES

BATMAN THE MOVIE
NEW ZEALAND STORY
F-18 FLIGHT SIMULATOR
AMIGA BASIC LANGUAGE
AMIGA TUTORIAL PACK
PAINT II ART PACK
WORKBENCH 1.32
KICKSTART 1.3
DESKTOP UTILITIES / EDITORS
TV MODULATOR
MOUSE AND MOUSE HOUSE
ONLY £369.00

A500 VIDEO SYSTEM

1 MEG AMIGA COMPUTER
WITH CLOCK
RENDALE 8802 GENLOCK
DELUXE PAINT II
DELUXE VIDEO III
VIDEO PRODUCTION PACK
MOUSE AND MOUSE HOLDER
ONLY £699.00

3.5" 1 meg
DISK DRIVE
FOR AMIGA £69.00

IBM PC

COMPATIBLE

STARTER PACKS

These starter packs contain
examples of specially
designed software,
which will help you to
get your IBM PC compatible
computer up and running with the
minimum amount of effort.

Each PC Starter pack contains:

- A 20 MINUTE VHS TRAINING VIDEO
- MS DOS TUTORIAL SOFTWARE
- TYPING TUTORIAL SOFTWARE
- A - Z OF COMPUTER JARGON BOOKLET
- INTEGRATED BUSINESS SOFTWARE PACK
(WORDPROCESSOR, DATABASE, SPREADSHEET)

FREE BONUS PACK

FULL BUSINESS ACCOUNTS PACKAGE
LETTERHEAD DESIGNER SOFTWARE
HELPDOS TUTOR / HINT SOFTWARE
10 3.5" BLANK DISKS DISKETTES

PC10 XT SINGLE DRIVE SYSTEM

with MDA mono monitor

• CGA colour monitor

• VGA mono monitor

• VGA colour monitor

PC10 XT DUAL DRIVE SYSTEM

with MDA mono monitor

• CGA colour monitor

• VGA mono monitor

• VGA colour monitor

PC20 XT HARD DISK SYSTEM

with MDA mono monitor

• CGA colour monitor

• VGA mono monitor

• VGA colour monitor

PC30 AT HARD DISK SYSTEM

with MDA mono monitor

• EGA colour monitor

All PC's include 12mths on-site warranty
and a special 90 day Software Helpline

MONITORS

SONY TV with RGB

KVM14 - NON REMOTE - £199.00

KVM14 - with REMOTE - £229.00

PHILIPS

8833 STEREO / 2 INPUT - £249.00

INCLUDES FREE!

12MTHS ON-SITE WARRANTY

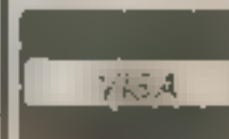
ANTI-GLARE SCREEN £12.00

HEAT TRANSFER RIBBONS

LC-10 MONO HTR - £12.95

LC-10 COLOUR HTR - £18.95

HT JUMBO COL PEN SET - £16.95



COMPUTERHOUSE UK

TEL: 01-731-1276 FAX: 01-371-9629
14 ROMILY COURT, LANDRIDGE ROAD,
FULHAM, LONDON SW6 4LL

ATARI

FREE!!

SOFTWARE COMPENDIUM
WITH EVERY ST / STE

ST FOR BEGINNERS MANUAL
ALL ABOUT MIDI MANUAL
DESKTOP PUBLISHER
ST VIRUS KILLER COLLECTION
BOOT DISK CONSTRUCTION SET
DESKTOP WORDPROCESSOR
ST DIAGNOSTICS
DISK EDIT / CUSTOM
FORMATTER
QUICK FORMATTER
50 / 60 HZ SWITCHER
SNAPSHOT II PIC DUMPER
UNDELETE FILE UTILITY
DESKTOP ALARM CLOCK
ARC FILE COMPRESSION SET
DESKTOP CALCULATOR
SOFTWARE BLITTER
RAM / PRINT SPOOLER
REVERSI GAME
QUICKFINDER FILE LOCATER
QUICKMOUSE ENHANCER
AUTO RAMLOADER
KEYBOARD CUSTOMIZER
3.5" DISK LABELLER
DESKTOP DISK EDITOR
CUSTOM FORMAT DUPLICATOR
SYSTEM RESET PROOF RAMDISK
AUTO COMPRESSION RAMDISK
BOOT DISK MAKER
PRINT HANDLER CUSTOMIZER
RAT-TRAP MENU CONTROLLER
HYPERCOPY DISK DUPLICATOR
PRINT SELECTOR
DISK CATALOGUE SYSTEM
STE FIXERS
DOC SHOW CONTROLLER

LYNX
COLOUR PORTABLE
GAMES SYSTEM
ONLY £165.00

STAR PRINTERS

Small Business series

LC-10 MONO NLQ 9 PIN £159.00

LC-10 MKII MONO NLQ 9 PIN £179.00

LC-10 COLOUR NLQ 9 PIN £198.00

LC-15 MONO NLQ 9 PIN £309.00

LC24-10 MONO LQ 24 PIN £239.00

LC24-15 MONO LQ 24 PIN £395.00

Professional series

XB24-10 48 PIN SLQ EMU £465.00

XB24-15 25 FNT 41K BUFF £609.00

FR-10 HEAVY DUTY 300CPS £355.00

FR-15 16 FNT 31K BUFF £465.00

STARSRIPT POSTSCRIPT
LASER PRINTER
ONLY - £2300.00

ST SWITCHBACK
£59.00

PRINTER STANDS
£9.95 ea

NEW!!

520 STFM

DISCOVERY PACK

INCLUDES 4 GAME TITLES

CARRIER COMMAND

SPACE HARRIER

BOMB JACK

OUTRUN

2 PRODUCTIVITY TITLES

S.T.O.S. GAMES CREATOR

NEOCHROME ART PACK

FIRST BASIC LANGUAGE

OUR SOFTWARE BUNDLE

PLUS

ST TUTORIAL SOFTWARE

DISCOVER YOUR ST BOOK

MOUSE & JOYSTICK

MOUSE HOUSE

ONLY £289.00

520STE

POWER PACK PLUS

£385.00

ST

PROFESSIONAL SERIES

ST MEGA 1 £509.00

ST MEGA 2 £799.00

ST MEGA 4 £1099.00

optional

SM124 MONITOR £99.95

OPTIONAL BUSINESS PACK - £29.95

STACY

ST PORTABLE COMPUTERS

ALL INCLUDE 1 MEG 3.5" DRIVE

1mg RAM / 20mg HARD DISK - £1340

2mg RAM / 20mg HARD DISK - £1540

2mg RAM / 40mg HARD DISK - £1645

4mg RAM / 40mg HARD DISK - £1849

AMIGA

HALF MEG

UPGRADE

WITH

CLOCK

£58.00

RIBBONS

LC10 MONO £3.50

LC10 COL £6.00

LC24 MONO £4.75

FR / XB

COLOUR KIT

£35.00

ALL PRICES

INCLUDE

VAT

EXCLUDE

COURIER

DELIVERY

AMSTRAD FX9600T FAX

THE COMPUTER LINKABLE FAX MACHINE

ONLY £679.00

DOUBLES UP AS A PRINTER AND COPIER

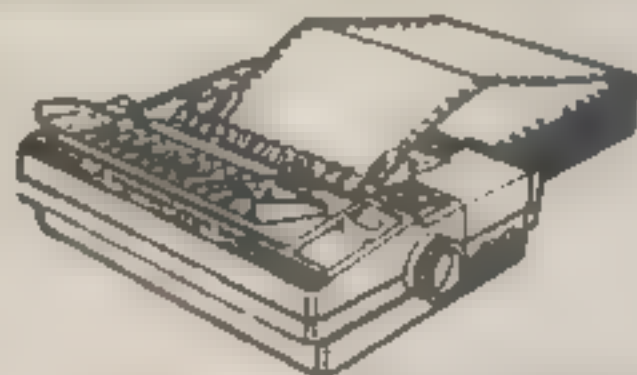
BLANK DISKS

All of our blank disks are guaranteed and supplied with labels. Our 3.5" Unbranded disks are either KAO or Sony. All Sony Branded disks are boxed and supplied with labels (all Sony 5.25" disks are supplied with write protect tabs). All disk prices include vat and delivery.



QUANTITY	10	20	30	50	100	200	250	300
UNBRANDED 3.5" DSDD	6.50	11.99	16.99	27.50	52.99	96.99	115.00	134.99
SONY BRANDED 3.5" 2DD	11.50	21.50	30.50	50.00	95.00	188.00	230.00	275.00
UNBRANDED 3.5" HD	14.95	27.95	39.95	59.99	115.00	225.00	279.95	330.00
SONY BRANDED 3.5" HDD	27.50	53.00	77.00	120.00	235.00	460.00	570.00	680.00
UNBRANDED 5.25" 360K	3.25	6.25	9.25	14.95	27.50	52.50	65.00	77.50
SONY BRANDED 5.25" 2D	7.95	15.50	22.50	36.99	69.99	135.00	165.00	189.99
SONY BRANDED 5.25" HDD	12.99	24.99	34.99	56.99	99.99	195.00	235.00	275.00

CITIZEN Swift 24



- * 24 Pin Printer
- * 192 cps draft
- * 64 cps LQ
- * Epson LQ compatible
- * IBM compatible
- * Nec P6+ character set
- * 5 resident LQ fonts
- * 80 column

- * Tractor feed
- * Single sheet feed
- * Parallel interface
- * Supplied with lead
- * 7 Colour option available extra
- * Beats LC24/10 II
- * RRP £447.35

SWIFT 24 ACCESSORIES

- Colour Upgrade Kit £ 34.95
- Black Ribbons (each) £ 3.95
- Colour Ribbons (each) £ 13.95

£310.00

INC VAT AND DELIVERY

Panasonic KXP1124

- * 80 col, 24 pin multi mode printer
- * 160 cps, 53 cps NLQ at 10cpi
- * 192 cps, 63 cps NLQ at 12cpi
- * Adjustable push/pull tractors
- * Front, rear and bottom feed
- * 10, 12, 15, 17, 20cpi + proportional
- * Front panel selection - no dials
- * 2 draft, 5 NLQ fonts standard
- * Paper Parking
- * A4 Landscape and Portrait
- * Epson LQ and IBM Pro compatible

EXCELLENT
VALUE!

£255.00

Including VAT and courier delivery



**MANNESMANN
TALLY**

MANNESMANN TALLY MT81 PRINTER

- * 9 Pin Dot Matrix
- * Parallel/Centronics interface
- * 155 cps high speed
- * 130 cps draft
- * 26 cps NLO

- * Epson emulation
- * IBM Printer emulation
- * Tractor feed
- * Single sheet feed
- * Paper Parking
- * Free ribbon
- * Includes cable
- * Ribbons only £3.95 each
- * 12 Months FREE On Site Warranty



£144.95

INC VAT AND DELIVERY

**BEST PRICES (0903) 700714
RING FOR LATEST DEALS**

PC MOUSE

The GENIUS OM-6X PC MOUSE:

- * 3 Button
- * Serial type
- * 9 pin & 25 pin connectors
- * Dr Halo II graphics software
- * Mouse Driver Software
- * Users Manual

100% Microsoft
Compatible
For use with IBM PC
XT or AT compatibles

only **£26.00** inc vat

ST MIDI

LATEST and ORIGINAL versions !!

C-Lab Creator SL V2.2

C-Lab Notator SL V2.2

C-Lab Unitor

C-Lab Export

Steinberg Pro 24 V3

Steinberg Pro 12 V1.1

Steinberg Cubase V1.5

Steinberg Soundworks

Steinberg Synthworks

Steinberg Avalon

Digital Muse Virtuoso

Digital Muse Prodigy

Dr.T Tiger Cub

FM Melody Maker

other packages available.

Phone now for the
Best Price !!
(If we print 'em you
won't believe 'em !!)

THE ATARI PORTFOLIO

A full-featured personal computer in the palm of your hand.

- * MS-DOS Compatible
- * LOTUS 1-2-3 spreadsheet
- * Full text editor
- * Address book/tone dialing
- * Appointments diary
- * 128K Ram

And you used to say
your Plofax was a
godsend....

A pocket sized PC at a
pocket sized price....

Atari Portfolio Pocket PC	£229.95
Smart Parallel Interface	£38.00
Smart Parallel Interface - with parallel cable	£39.95
32K Memory Card	£46.75
64K Memory Card	£82.95
128K Memory Card	£119.00
Finance Software Card	£47.50
PC Application Software	£47.50
Utilities Software Card	£47.50
Serial RS-232 Interface	£56.95
Super Memory Expander	£164.95
Portfolio Card Drive	£67.50
Mains Power Adaptor	£11.99



Genuine Star LC10 Ribbons...

- 5 x Black Ribbons £16.95
- 10 x Black Ribbons £32.95
- 5 x Colour Ribbons £24.95
- 10 x Colour Ribbons £47.95

Star LC10 Mono 9-pin dot matrix printer £ 169.00

Star LC10 Colour 9-pin dot matrix printer £ 219.95

All LC10 Printers come with cable and 12 Months On-Site Warranty FREE!

LEADS, PLUGS & CABLES

Parallel lead (ST, PC & Am)	£5.95
Pair of 2.5m Midi leads	£6.95
Joystick/Mouse extension cables (ST)	£4.75
Monitor Switch box (2 x ST monitors)	£14.95
13 pin din plug (ST monitor)	£1.95
14 pin din plug (ST disk drive)	£2.25
14 pin din socket (ST disk drive)	£2.95
ST replacement mouse lead	£3.75
Scart plug with plastic hood	£1.95

ATARI STE

BEST PRICES were the FIRST to offer you 520STE with expanded memory and many other mail order firms followed us, now the market leaders in Atari ST has some great new deals for everyone take a look at these !!!

All of our STE computers are checked prior to despatch. All ram upgrades are fitted on-site by our own engineers. All prices include 72hr courier delivery and vat.

ALL STE MACHINES COME WITH :

- * **FIRST BASIC** - a programming language
- * **MUSIC MAKER** - excellent music program
- * **ORGANISER BUSINESS SOFTWARE**

ATARI STE 512K RAM	£345.00
ATARI STE 1MB RAM	£395.00
ATARI STE 2MB RAM	£449.00
ATARI STE 4MB RAM	£599.00

ATARI 520STFM POWER PACK

- * **Atari 520STFM computer**
- * **20 Top Selling Games** (Afterburner, R-Type, Gauntlet 2, Super Hang On, Space Harrier, Star Glider, Overlander, Super Huey, Pac Mania, Nebulus, Eliminator, Predator, Xenon, Bombuzai, Bomb Jack, Double Dragon, Black Lamp, Out Run, Star Goose and Star Ray)
- * **Mouse, Joystick and instructions**

ALL THIS FOR ONLY

£315.00

including vat and 72hr courier delivery.

STE RAM UPGRADE KITS

520 STE to 1MB (2 x 256K cards) LOOK 17
 520/1040 STE to 2MB (2 x 1MB cards) £179.95
 520/1040 STE to 4MB (4 x 1MB cards) £359.95

OUR RAM UPGRADE PRICES INCLUDE VAT AND DELIVERY BY COURIER

ATARI LYNX

THE NEW COLOUR HAND HELD CONSOLE

- * Fully portable games system using plug in card software
- * 16 colours from palette of 4096 on a 3.5" colour screen
- * 160x102 pixel display - crystal sharp & back lit
- * Volume, brightness and contrast
- * 8-way joystick controller - very sensitive
- * Flip screen for left or right handed players
- * Excellent 4 channel sound effects
- * 64K RAM, 16Mhz clock speed, 8Mb game capacity
- * Battery or Mains powered (4hrs battery life)

ATARI LYNX GAMES MACHINE

(with California Games card FREE !)

only **£ 165.00** inc vat + delivery

Blue Lightning	£ 22.99	(RRP £29.99)
Chips Challenge	£ 22.99	(RRP £29.99)
Electrocop	£ 22.99	(RRP £29.99)
Gates of Zendecon	£ 22.99	(RRP £29.99)
Gauntlet III	£ 26.50	(RRP £34.99)
Rampage	£ 26.50	(RRP £34.99)

MAKE YOUR STE 1 MEG !

* **SPECIAL OFFER** * **SPECIAL OFFER** *
 For a limited period only we are offering you the chance to purchase 2 * 256K simm cards which plug straight into any 512K STE (giving you 1MB Ram) for only ...

£ 52.50

including VAT and delivery

* **SAVE £ 10.00** * **SAVE £ 10.00** *

* ATARI ST PERIPHERALS *

Atari SM124 Mono Monitor	£ 99.99
Atari Megafile 30 Hard Disk	£ 449.95
Atari Megafile 44 Removable HD	£ 849.99
Atari Megafile 60 Hard Disk	£ 619.95
Atari SLM804 Laser Printer	£ 1115.00
Philips 8833 Stereo Colour Monitor	£ 259.95
Cumana 1 MB External Drive	£ 89.95
ST Monitor Switch Box	£ 14.95
STE Stereo Scart Lead	£ 12.99
Robokit Interface	£ 89.00
Power Pack Games	£ 39.99

ST GAMES ONLY £2.00 EACH ?

Afterburner, R-Type, Gauntlet, Super Hang-On, Space Harrier, Star Glider, Overlander, Super Huey, Pac Mania, Nebulus, Eliminator, Predator, Xenon, Bombuzai, Bomb Jack, Double Dragon, Black Lamp, Out Run, Star Goose and Star Ray.

All of the above games are available in the Power Pack Software pack for only

£39.99 (that's less than £2.00 each !)

BEST PRICES

(DEPT NCE), UNIT A, GRAFTON PLACE,
 WORTHING, WEST SUSSEX. BN11 1QX



(0903) 700714

YOU CAN PLACE YOUR ORDER 24 HOURS A DAY



All prices include VAT and delivery unless otherwise stated. Goods despatched same day whenever possible. All prices are subject to change without notice. BEST PRICES only supply original equipment and not grey imports. All of our equipment is fully guaranteed. We stock all types of computer hardware and software - give us a call for our BEST PRICES.

Mail order only, callers and collections only by prior arrangement with us. Thank You.

ALL PRICES INCLUDE UK DELIVERY UNLESS STATED
 ADD £5.00 INC VAT FOR NEXT WORKING DAY COURIER DELIVERY
 ADD £10.00 INC VAT FOR SATURDAY COURIER DELIVERY

SHOPPING EXPRESS READER ADS

There are great bargains to be had in our reader ads section, but remember to check before you buy - we cannot be held responsible for the quality of the goods on offer!

● FOR SALE

DATTEL 1200 modem. C/w all leads and t/phone etc. Sensible offers please. Call 0302 771378 evenings or weekends.

CYBERNOID, Operation Wolf, Gauntlet II, Carrier Command and many more Spectrum games. Also programming books, year of Sinclair User and Y.S. Dublin Callers only on 775717.

APRICOT F1, 265K, mono monitor, manuals, books, magazines, plenty of software £150 only. Telephone Barnsley 0226 757835 after 6pm.

AMSTRAD CPC664 with colour monitor, joysticks, manuals, leads and over £150 of software on disc and tape for only £250. Tel: 061-427 3386. Ask for Mark.

MONITOR for sale. IBM compatible £75.00 o.n.o. Please ring 0904 701803 York after 4.30pm.

AMSTRAD CPC464 with green monitor, lots of software and TV modulator, not used at £140. Tel: 0294 67086.

AMSTRAD CPC464, colour monitor, with £100's of software for business and

games, and Multiface 2 for more serious users with magazines, joystick, £300 o.n.o. Martin 0524 66015.

SHARP MZ80B with twin disk drive. Offers to Paul 0294 67086.

ATTENTION Midi Amiga beginners. Brand new PSS480 midi keyboard plus Track 24 software worth £210. Plus 3 1/2-inch disk drive, swap for modem or Amiga monitor. Phone 091-383 0358.

SPECTRUM 128k +2A limited edition for sale, including Lightgun, joystick, manual and the latest games including Robocop, Untouchables and Chase HQ. Only £220 phone Shabeer 0932 564188.

OCEANIC OC-118N disk drive boxed, blank disks, games disks, mags, manuals, etc. Freeze Machine cartridge £150 o.n.o. Suit C64. Tel: 0324 32281 after 5pm.

AMIGA software for sale: Future Wars £12, Batman £10, F/A-18 Interceptor £8, Barbarian-Ultimate Warrior £7, Baal £4. In excellent condition, please ring 0782 48335 Matt.

QL and Philips monitor. Users guides, book set, 20+ micro-cassettes: Wordprocessor, Spreadsheet, Database, graphics, Games. Ideal Starter £120 o.n.o. Plymouth 0752 340194.

VGA card for PC or IBM PS/2 Mod 30 £100 o.n.o. Phone 0475 520112.

ATARI 1040STFM. Atari SC1224 col. mon., 2nd disk drive, joystick, computer table, professional software, games, mags, instruction books, spare disks, 1yr old, £625.00 o.n.o. Tel: 0865 770559 evenings.

ZX printer and Multiface for 48k Spectrum for sale. £25 each. Write to: David Thom, 13 Drayton Road, Kings Heath, Birmingham, B14 7LP.

PC Tandy 1000 HX computer, 3 1/2-inch disk drive, new boxed, unwanted present, under warranty £200.00. Letchworth 0462 684995.

520STFM, real bargain, software inc. Blood Money, Populous 2, joysticks, disc box, new mouse, originally boxed, v.g.c. Sell all for £280. Phone 0226 755387.

AMSTRAD CPC464 with colour monitor, over £185 of software - joystick. Will listen offers 0706 848557 after 4pm.

SPECTRUM software plus computer magazines for sale. S.A.E. for list. Software mostly unused. A. Chapman, 33 Albert Road, Leyton, London E10 6NU. Strictly postal only.

AMSTRAD CPC464 without monitor £45 excellent condition but would need an Amstrad modulator or monitor to be useful. Richard Evans, St. Edmund Hall, Oxford, OX1 4AR.

AMIGA 2000 20Mb hard drive, 2Mb extra RAM, PC/XT bridgeboard, 2nd 3 1/2-inch drive, 5 1/4-inch drive, colour monitor, Amiga Wordperfect, other software. £1200/offers, weekends only. London, Ealing area. Telephone 01-574 5265.

HI-TEC EC2400 modem 4 speed 300/300 1200/75 1200/1200 2400/2400 manual software included £250. No offers as this is a faster modem than normal. Ring Malcolm

0780 56449.

AMSTRAD CPC464 computer plus monitor, games, two joysticks, manuals and Amstrad Speech Synthesiser with speakers £150. Tel: 0889 582293.

ADVANCED OCP Art Studio disk for CPC6128 Unwanted and unused Aaah! You can give it a home for £10 inc. postage. Tel: 0983 872616.

AMIGA Lattice C V5.04 for sale only £100.00 as new. Tel: Leyland 0772 434515, and ask for Andy.

AMSTRAD PC1512 MM/DD plus DMP3000 printer plus various software £400 o.n.o. Tel: 0472 600147 after 6pm. Ask for Jim.

C64 1541 disk drive, cassette unit, 200 disks of games, expert cartridge, joystick, plus books and magazines. Buyer collects £240 o.n.o. Tel: 0482 796299.

SPECTRUM 128+2 includes joystick, Kempston Interface, 50 games, adventures, Flying Sharks etc. Manuals, magazines £100 o.n.o. Call Ashill, Norfolk, 0760 440829.

AMIGA A500 boxed, games Batman £12, Super Hang-On £9, Super League Soccer £9, Extensor £5. Phone Sheffield 0742 884183. Wanted: Atari ST or PC or Amiga.

AMSTRAD 6128 with colour monitor, T.V. Tuner, £100 worth of software, Brunword, Dragon Ninja, Joystick, manual. In original packaging £400 o.n.o. J. Khan, 18 Patrick St., Grimsby, DN32 0JQ.

MEMOTECH, Ace, Spectrum, ZX81 for sale. Hardware, software, books for above and other 8 bits. Few QL items. S.A.E. for list. 2 Townmead, Oakford, Devon, EX16 9EW.

AMIGA 500 Class of 90's package, 1/2 mb RAM upgrad new in January, £550 software etc. as new. A501 upgrade fitted. £575.00 Phone 01-299 2220.



AMIGASOFT

AMIGA & ST SPECIALISTS

UNIT 1 DRAKE HOUSE
160 DRAKE STREET
ROCHDALE, LANC
OL16 1PX
TEL: 0706 43519

A500. FLIGHT OF FANTASY PACK

A500 - Computer. TV - Modulator. P.S.U. K/S 1.3. W/B. 1.3. Mouse. Extras & Tutorial Disks, all leads and manuals.

Plus:- F29 Retaliator, Rainbow Islands, DPaint II, Escape from the Planet of Robot Monsters

ONLY £369.00



A500 BAT PACK

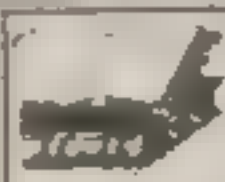
Only £359.00
+Ten Star Pack.

1: Amegas, 2: Art of Chess, 3: Barbarian, 4: Buggy Boy, 5: Ikan Warriors 6: Insanity Flight, 7: Mercenary Comp, 8: Terrorpods, 9: Thundercats, 10: Wizball

R.S. PRICE: £379.00

Plus Photon Paint II * Only £389.00 *

COMMODORE 1084S £249.00
PHILIPS CM 8833 ! £249.00
All Monitors Include Leads!

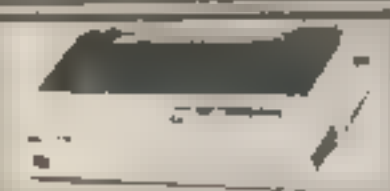


Class
of
90's
Now in Stock
Only £519.00

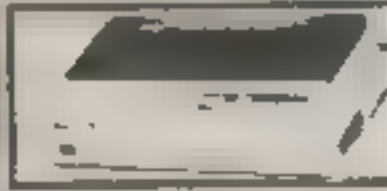
MONITOR PACK.

Buy any pack & we will offer a Philips CM8833 FOR ONLY £239 inc lead

NAKSHA MICE.....ONLY £38.00
CONTRIVER MICE.....ONLY £26.00



PRINTERS



STAR LC 10 MONO ONLY £159.00
STAR LC 10 COL. ONLY £199.00
PANASONIC KXP 1124 ONLY £259.00

PRINTER RIBBONS
ALL MAKES AVAILABLE, LOW PRICE
EG: STAR LC-10 MONO £4.49. Col - £7.50

ALL OUR PRINTER PRICES ARE INCLUSIVE OF LEADS

RAM EXPANSION, Inc. Clock & Switch...£69.95...3.5" EXTERNAL DRIVE...£75.00
TDK 3.5" DISKS X 10...£12.00...POSSO 150 CAP DISK BOX...£18.00.
LC10 DUST COVER...£8.50...MONITOR COVER...£9.50...A500 COVER...£7.00
PLEASE CALL FOR PRICES ON ITEMS NOT LISTED

**ACCESS
VISA
&
STYLE**

Please note, all our prices include VAT & Courier Delivery. All hardware items despatched within 24 hrs, dependent on availability & cheque clearance, prices subject to change without prior notice at any time. Personal callers welcome. We are open from 09.00 - 17.30 Mon to Sat. E&OE.

3 1/2"

DSDD DISKS

**100% CERTIFIED
ERROR FREE**

**PRICE INCLUDES
VAT & LABELS**

**ALL OUR DISKS
ARE FULLY
GUARANTEED**

40P

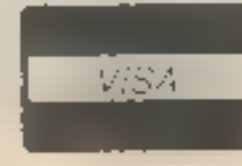
80 Capacity Disk Box £5.50: With Disks £4.50
12 Capacity, 95p each £7.50 for 10
Quality mouse mats £3.95
3 1/2 inch High Density disks £1.20 each.

AMIGA 512K UPGRADE WITH CLOCK £55.00

PLEASE ADD £3.20 P+P PER ORDER
Cheques/PO's to:-

MEDIA DIRECT - DEPT NCE
11 SAGE CLOSE, HANLEY
S-O-T ST1 3SF

TELESALES HOTLINE:
0782 - 712819



COMPUTERS SADDLER COMMUNICATIONS

Mail Order Dept. Trading Hours
Mon To Fri 9.00 am to 1.00 pm
(Lunch 1-2) 2.00 pm to 5.00 pm
Saturday: CLOSED

TELEPHONES:
Ashton-in-Makerfield
(0942) 720867 and 711821
Facsimile: (0942) 271226

SADDLER COMPUTER SERVICES LTD, 340 HAYDOCK LANE, HAYDOCK, ST. HELENS, LANCASHIRE WA11 9UY

COMMODORE PC STARTER PACKS					MDA MONO 1402 12"	CGA COL 1084 14"	EGA COL 053 14"	VGA MONO COL 1403 14" 9809 14"		STAR PRINTERS				
PC10 XT SD- 5 1/4" SINGLE DRIVE					£489	£625	—	£646	£729	MODEL	P	G	S'PD	COST
PC10 XT DD - 5 1/4" DUAL DRIVE					£534	£668	—	£685	£773	LC10P	9	80	144/36	£129
PC20 XT HD - 20Mb HARD DRIVE					£685	£799	—	£859	£949	LC16PC	9	80	144/36	£168
PC30 AT HD - 20Mb HARD DRIVE					£996	—	£1159	—	—	LC1011PC	9	80	180/45	£145
								Available 4/90	Available 4/90	LC15P	9	136	180/45	£268
										FR10P	9	80	300/76	£299
										FR15P	9	136	300/76	£393
										LC24-10P	24	80	170/57	£199
										LC24-15P	24	136	200/67	£355
										XB24-10P	24	80	240/80	£395
										XB24-15P	24	136	240/80	£519
										LASER 8		8PPM	£1199	
										LASER 8IIT		8PPM	£1568	
										NEW LASER 8II STAR 'PT				£1699
										LASER STAR (Postscript)				£1799

AMSTRAD CENTRE

of the NORTH WEST

PC COMPUTERS				WORD PROCESSORS		PRINTERS		SOFTWARE	
MODEL	MONO	COLOUR	ENH. COLOUR						
1512-SD	£343	£429		8256	339	DMP 3160	109	Accounts Master	£99
1512-DD	£429	£517		8512	429	DMP 3250 DI	112	Accounts Master Lan	£199
1640-SD	£473	£555	£646	9512	448	DMP 4000	169	Paymaster	£36
1640-DD	£555	£646	£728	INCL AUTO SHEET FEEDER		LQ 3500 DI	189	Dbase 3	£68
1640-HD (30)	£728	£799	£889	PORTABLES		LQ 5000 DI	299	Infomaster	£49
2000 RANGE	VGA MONO 12"	COL 14"	HRC 12" HRC 14"	PPC 512S	343	DISC DRIVES		Wordstar Express	£69
2086-SD	£517	£646	£689	PPC 512D	429	FD4 2nd drive Word proc	115	Supercalc 3.21	£62
2086-DD	£599	£728	£773	PPC 640S	473	FD7 3.5" 1.4mb Int 2286	139	Supercalc 4 Lan	£135
2086-HD (30)	£773	£889	£943	PPC 640D	549	FD9 3.5" 1.4mb Ext drive	149	Amsnet	£345
2286-DD	£858	£989	£999	FREE MOTOROLA 8500X CELLPHONE		FD10 5.25" 360K Ext drive	139	PCW SOFTWARE	
2286-HD (40)	£999	£1159	£1199	AMSTRAD FX9600T FAX ONLY £519.00		FD11 5.25" 1.2Mb Ext 2286/2386	149	Dbase II	£49
2386-HD (65)	£1693	£1799	£1876					Supercalc 2	£43
ALL THE ABOVE PRODUCTS ARE SUPPLIED WITH 12 MONTHS ON-SITE WARRANTY TO BE CARRIED OUT BY DICTAPHONE								Sage Accounts Plus	£88
								Sage Accounts	£59
								Payroll	£42

ALL PRICES EXCLUDE VAT AND CARRIAGE

E & OE ALL PRICES AND MANUFACTURERS SPECIFICATION SUBJECT TO CHANGE WITHOUT NOTICE

FULL RANGE OF SOFTWARE PRINTERS ACCESSORIES AVAILABLE. RING FOR DETAILS

DELIVERY UK MAINLAND

PRODUCT **NEXT DAY** **4 DAYS**
 Hardware £12 PER BOX £7 PER BOX
 Software £8 PER BOX £4 PER BOX
 Consumables £5 plus post and packing

(FROM GOODS BEING IN STOCK)

PAYMENT ACCESS, VISA BY CHEQUE:
 Goods despatched when cheque cleared, express clearance charge

THE PEOPLE TO DO BUSINESS WITH

SHOP TRADING HOURS: - MONDAY 2.00PM - 5PM, TUES TO FRI. 9.00AM TO 1.00 PM (LUNCH 1-2) 2.00 PM TO 5.00 PM. SATURDAY 9.00 AM TO 4.30PM

Dowling

MAIL ORDER DIVISION

COMPUTERS

HEAD OFFICE:

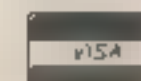
Unit 48

Tyne Road

Sandy, Beds, SG19 1SA

Tel: 0767 681750/60

Fax: 0767 681730



ALL PRICES INC VAT PLUS A FULL 1 YEAR GUARANTEE

★NEW★ STOP PRESS★ NEW
AMIGA 500 Flight Of Fancy Pack inc
F29 RETALIATOR, Rainbow Island etc RRP £399.95 OUR PRICE £359.95

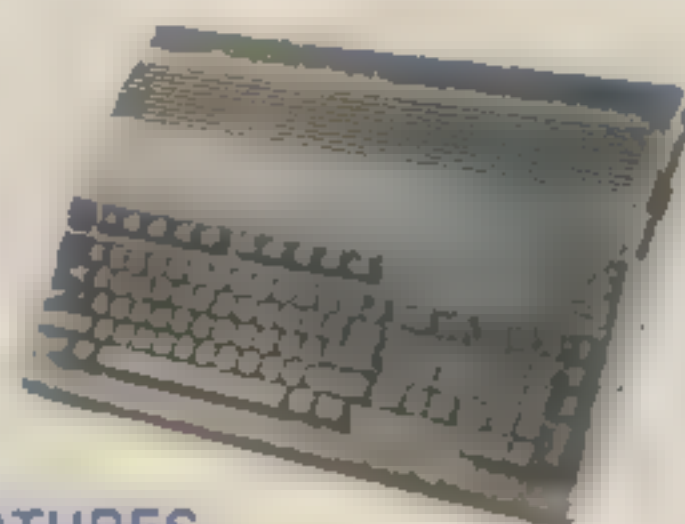


AMIGA COMPUTERS & ACCESSORIES

FULL 1 YEAR GUARANTEE	RRP	OUR PRICE
AMIGA 500 + Mouse, modulator, Workbench 1.3, manuals etc.....	£379.99	£339.99
AMIGA 500 BATMAN PACK, inc DPaint II, Batman the Movie, etc.....	£399.99	£349.99
AMIGA 500 1 MEG BATMAN PACK inc our own Megaboard, Ram Expansion upgrade with clock	£489.95	£399.95
AMIGA 500 CLASS OF THE 90'S PACK, inc Publishers Choice, BBC Emulator	£573.85	£499.99
DOWLING AMIGA PLUS PACK - available only with above		
TENSTAR Games Pack + 10 3 1/2" disks mouse mat + Dustcover + Joystick	£249.99	£39.99
COMMODORE 1084S Stereo Monitor.....	£309.99	£249.99
CUMANA 1 meg quality drive - The Best!	£89.99	£79.99

THE MEGABOARD RAM EXPANSION 500

UP-GRADES
YOUR
AMIGA A500
FROM
512K
TO 1
MEGABYTE!



FEATURES

- Only top quality components used
- Real Time clock with NICAD battery backup
- Memory disable switch to revert back to original 512K
- 12 months guarantee. Fully tested prior to despatch

Purpose designed for the

AMIGA A500

**ONLY
£59.95**

PRINTERS

	RRP	OUR PRICE
Star LC10 Mono 144/36 C.P.S	£229.95	£149.95
Star LC10 II 25% Faster version	£263.35	£169.95
Star LC10 Colour, 7 colours	£297.85	£189.95
Star LC24-10 - 24 pin multifont	£343.85	£229.95
Star LC10 Sheet Feeder (auto)	£74.75	£49.95
Star LC10 Mono Ribbons	£5.95	£3.95
Star LC10 Colour Ribbons	£7.95	£5.95
Star LC24-10 Ribbons	£7.95	£5.95
Star LC10 Quality Dust Cover	£7.95	£5.95

star
COMPUTER PRINTERS

Registered Dealer

Being Star registered dealers we only sell official UK machines which come with a full 1 year guarantee. Beware of inferior imported products



ATARI COMPUTERS & ACCESSORIES

FULL 1 YEAR GUARANTEE	RRP	OUR PRICE
Atari 520STFM Discovery Pack including Stos, Outrun, Space Harrier, First Basic etc.....	£299.95	£259.95
Atari 520STE New enhanced model	£399.95	£349.95
Atari 520STE + 1 Megabyte of Ram.....	£499.95	£399.95
Atari 520STE + 2 Megabytes of Ram.....	£599.95	£469.95
Atari 520STE + 4 Megabytes of Ram.....	£799.95	£649.95
Mega ST1 with mono monitor	£699.95	£599.95
Mega ST2 with mono monitor	£999.95	£849.95
Mega ST4 with mono monitor	£1299.95	£1149.95
SH124 High Res mono monitor.....	£149.95	£119.95
Philips 8833 Stereo monitor	£299.95	£259.95
SC1224 Colour monitor	£299.95	£279.95
Megafile 30 Meg Hard Disk Drive.....	£499.95	£439.95
Cumana High Quality Drive with PSU	£99.95	£89.95
Genius Replacement ST Mouse	£29.99	£22.99
Quality Fire retardent ST Dust Cover	£8.99	£5.99

ATARI 520STE COMPUTER RRP £399.95

OUR PRICE £249.95★

★ WHEN YOU TRADE IN YOUR OLD 520STFM

That's right, we'll knock £150 off the NEW 520STE when you trade in your old working 520STFM. Look at the great deal you'll get.

★ New enhanced 520STE with full 1 year guarantee

- ★ Palette of 4096 colours
- ★ Enhanced PCM Stereo sound
- ★ 2 additional analogue device inputs
- ★ TOS 1.6 operating system
- ★ Easily upgradable to 4 megabytes of Ram

**All this for just £249.95 -
so order yours now**

Why Dowling Computers?

Here are just a few reasons why customers prefer us

★ First and foremost
We really CARE
about our
customers' needs

★ ALL OUR STAFF are
trained to give a
friendly personal
service.

★ EMPLOYING
ENGINEERS ourselves,
we won't send repairs
away for weeks on end!

★ That's why we at
Dowling say
"FORGET THE REST
TRUST THE BEST"

THE BEST POSSIBLE SERVICE AT THE LOWEST POSSIBLE PRICES!

REMEMBER, FORGET THE REST - TRUST THE BEST!

★ THIS WEEK'S SOFTWARE BARGAINS FOR THE AMIGA 500 ★

HURRY - LIMITED STOCKS	RRP	OUR PRICE
F29 Retaliator - Long Awaited Classic.....	£24.99	£14.99
Rainbow Island - 95% Amiga Format.....	£24.99	£14.99
Escape from the Planet of Robot Monster.....	£24.99	£14.99
Photon Paint II - Incredible Bargain.....	£69.99	£19.99
Aegis Sonix - Music Package.....	£69.99	£29.99
Deluxe Paint 2 - At this price its ■ steal.....	£69.99	£9.99
Shadow of the Beast - A classic.....	£34.99	£17.99
Blood Money.....	£24.99	£9.99
Obliterator.....	£24.99	£6.99
Barbarian - Psygnosis version.....	£24.99	£6.99
Driller - 3D classic.....	£24.99	£6.99
Dark Castle - Mirrorsoft adventure.....	£24.99	£6.99
Conflict in Europe.....	£24.99	£6.99
Deflector.....	£24.99	£6.99
Bombuzal - extremely addictive.....	£24.99	£6.99
Ballistix - fast competitive ball game.....	£19.99	£6.99
Batman - The Movie.....	£24.99	£6.99
F18 Interceptor.....	£24.99	£6.99
New Zealand Story.....	£24.99	£6.99
Spy Vs Spy.....	£9.99	£4.99
Spy Vs Spy II - The Island Caper.....	£9.99	£4.99
Boulderdash Construction Kit.....	£9.99	£4.99

MUSIC - X SCOOP

We have packaged the best MUSIC SOFTWARE for the Amiga together with the best MIDI interface on the market.

Look at what you get:

MUSIC-X widely acclaimed as the most comprehensive and easy to use professional music ability for the Amiga.
RRP £229.95.

MIDI INTERFACE 2 Latest high quality product from Trilogic offering ■ total of FIVE MIDI sockets alleviating the need for lead swapping once connected to a MIDI system.
RRP £34.95.

MIDI LEAD 1 metre lead allowing you to set up and get going! **RRP £4.99**

This total package would normally cost you over £269 but we are literally giving them away ■ the incredible price of:

£129.95

HURRY - STOCKS LIMITED ON A FIRST COME FIRST SERVED BASIS!

1/2 PRICE OR LESS

★ BUSINESS SOFTWARE SCOOP ★

1/2 PRICE OR LESS

COMPUTER	WORDPROCESSOR	DATABASE	SPREADSHEET
AMIGA	KINDWORDS II RRP £59.95 OUR PRICE £29.99	SUPERBASE PERSONAL 2 (v.3) RRP £99.95 OUR PRICE £29.99	MAXIPLAN RRP £99.95 OUR PRICE £29.99
ATARI ST	1ST WORD PLUS (ver 2.02) RRP £79.95 OUR PRICE £39.95	SUPERBASE PERSONAL 2 (ver 3.02) RRP £99.95 OUR PRICE £34.95	LOGISTIX (ver 1.25) RRP £69.95 OUR PRICE £34.95
IBM PC COMPATIBLES	PROTEXT 4 (vers 4.2) RRP £99.95 OUR PRICE £49.95	SUPERBASE PERSONAL 2 (vers 4.02) RRP £99.95 OUR PRICE £29.99	LOGISTIX (ver 1.25) RRP £69.95 OUR PRICE £29.99

SEGA 16-BIT MEGADRIVE

Be one of the first 16-bit owners with this latest version from Sega.

Complete with TV leads, PSU etc. Although imported from Japan, as with all our products we are giving you a full 1 year guarantee.

CONSOLE ONLY £169.99
CONSOLE WITH CLASSIC "GOLDEN AXE" £209.99

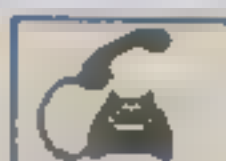
THIS WEEK'S SPECIAL OFFER

BOX OF 100 GENUINE SONY 3 1/2 DS/DD DISKS IN SONY OUTER, INDIVIDUALLY WRAPPED WITH "MADE IN JAPAN" ON EACH DISK. 100% CERTIFIED - RENOWNED AS THE BEST!

ALL FOR THE SILLY PRICE OF £49.95

Only 1 box per customer and with this voucher only

ORDERING MADE EASY



Order by phone by calling our Head Office quoting your Access/Visa Number



Order by Post - make Cheques, Building Society Drafts or Postal Orders payable to Dowling Computers

Add £6.00 courier delivery for all orders over £100.00. Add £2 P&P for orders under £100.00

Music Writer™

DEMO TAPE

£3 Refundable
against
purchase

POST
FREE

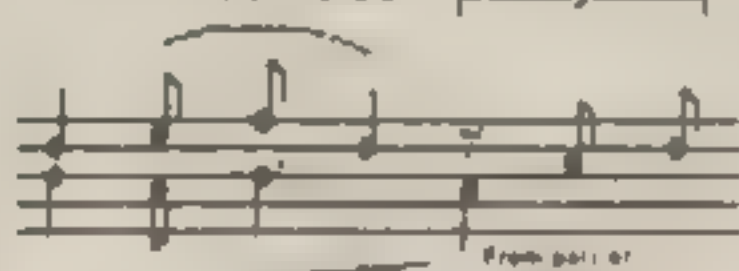


G. Rowland
P.O. Box 49
Dagenham
RM9 5NY

Music Writer™

128/+2/+3 SPECTRUM
Three part score writing system

- Comprehensive range of music symbols
- Easy to edit and move bars
- WYSIWYH - an invaluable learning aid
- Loads and runs on all Spectrum 128s
- Manual, ring binder and demo scores
- +3 auto disc transfer



Only

£19.95

+£2 p.p.
and S&T

G. Rowland
P.O. Box 49
Dagenham
RM9 5NY

PUBLIC DOMAIN SOFTWARE AND SHAREWARE

Extensive ranges of Public Domain Software & Shareware available for the following Computers

IBM PC & COMPATIBLES

Including AMSTRADS

£2.95 per 5.25" disk

£4.50 per 5.25" disk

Apple MACINTOSH range

£4.99 per disk

COMMODORE 64 & 128

at £2.95 per 5.25" disk

COMMODORE AMIGA

from £3 per disk

ATARI ST

from £2.80 per disk

COMMODORE PLUS/4

from £3.75 per disk

APPLE II RANGE

from £3.75 per disk

CATALOGUES

Catalogues and lists are available for all the above. Please send SAE or phone if you would like any further details. Please state clearly which machine(s) you are interested in.

ORDERING

Please note that the above prices are FULLY INCLUSIVE of VAT and Postage. Orders are normally despatched within two working days of receipt. We cannot accept payment by credit card.

KINGSWAY COMPUTERS

72 Glencoe Road, Sheffield, S2 2SR

Tel: 0742 750623

School problems?

GCSE?



Whatever your age, whatever your subject
- let your computer help you learn.

Our range of leisure and educational software is now available for most home and business computers.

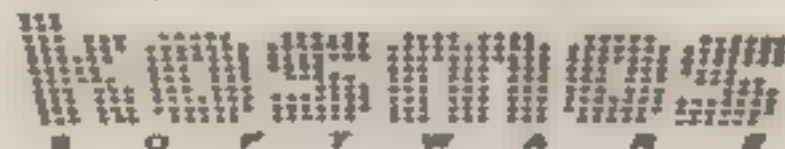
Subjects include ...

French, German, Spanish, Italian, English
History, Geography, Science, General Knowledge,
Football, First Aid, Sport, England, Scotland,
Natural History, Junior Spelling and Arithmetic

Kosmos are specialist producers of Educational Software designed to help you enjoy learning from your computer. Our programs even allow you to add your own lesson material.

Write or telephone for a FREE 20-page BROCHURE
of our Educational & Leisure software
Please state your computer type

Kosmos Software Ltd, FREEPOST (no stamp needed)
DUNSTABLE, Beds. LU5 6BR
Telephone 05255 3942 or 5406



THIS SPACE CAN BE YOURS

FOR ONLY £56

MAKE IT WORK FOR YOU

CALL NOW
on 0225 442244

HAT Software

New!! Learning to Type

A typing tutor for the young and not so young. Ladies, do you want to return to the modern office but are unsure about your keyboard skills? Brush them up at home. The kids can enjoy the "Shoot 'em up" game to improve their skills and speeds.

Only £14.95, or direct from us at £15.45 inc P & P.

Also JIGSPELL, the spelling support program, FIRST PAINT and STAGE 2, our well established graphics packages, and many more. Send for our full list.

21, Wyle Cop, Shrewsbury, SY1 1XB

Tel: 0743 231763

TELEGAMES

Europe's Largest
Stock of Video
Games
& Cartridges For -

Still
Europe's No 1!
Why Wait, Call in
or order now.



SEGA MEGA DRIVE
NINTENDO
GAMEBOY



"What Video Game"
2 hour VHS film. Shows
all the main game
systems and over 400
games. Available now
£14.95.

PC Super
Grafx now in
stock!


The leading Video game specialists.
Send for lists (state make of game)


Telegames, Wigston, Leicester, LE8 1TE.

Tel: 0533 880445, 0533 813606

or 0533 889989

UNBRANDED 3.5 DISKS
10 FOR £6.99
50 FOR £32.99
100 FOR £59.99
ALL DS/DD WITH LABELS
PRINTER RIBBONS • DISK BOXES • BRANDED MAXELL DISKS
STOCKIST FOR AMIGA & ST
Compute-IT
151 HIGH STREET, TEWKESBURY, GLOS
TEL: (0684) 290097
 ALL PRICES INCLUDE VAT & POSTAGE

clipart 
 VISA AMIGA IBM/PC
 Over 2000 simple clipart pictures compiled into 4 sets. Each set contains over 500 images in .PCX format (PC), ILBM (AMIGA) with printed picture catalogue. For IBM & PC compatibles and AMIGA. Sets 1 to 4 £14.99 each inclusive VAT & 1st class same day post. Buy 4 sets with catalogues for £44.97 save £14.99. For Timeworks, FSE, Ventura, PageMaker, etc on the PC Pro-Page and CityDesk etc. on the Amiga in ILBM (IFF ext) FREE! PD & Shareware catalogue for IBM & PC only, just phone. State PC or Amiga when ordering clipart, we cannot exchange.
Country Publications
 Dept NCE, 79-79a Highcroft Ave.
 Oadby, Leicester. LE2 5UH
 Tel: (0533) 715160
 Open 9-30 to 5-30 Closed MONDAYS and 1st 2 weeks in July. Prop. R. Pyne

COMPUTER REPAIRS
Fixed Super Low Prices/
 Inclusive of parts, labour and VAT  **FIRST AID FOR TECHNOLOGY**
1 WEEK TURNROUND
*** AMSTRAD / SINCLAIR AUTHORISED ***

SPECTRUM 48K	£14	C64	£22
SPECTRUM 128	£18	VIC 20, C+4	£22
SPECTRUM +2	£27	1541 DISK DRIVE	£36
C128	£29	C2N TDECK	£19
C16	£18	C64 PSU for sale	£27
Amiga	POA	Atari ST	POA

 Please enclose payment with item - 3 month warranty on repair.
 Please enclose advert with repair.
W.T.S. ELECTRONICS LTD
 (NCE 26 04 90)
 Studio Master House, Chaulend Lane, Luton, Beds. LU4 8EZ
 Tel: 0582 491949
 (4 lines) Standard terms of business apply

EXPRESS COMPUTERS
SPECIALISTS IN SECOND USER IBM COMPATIBLE COMPUTERS & EQUIPMENT
 ● PRINTERS ● PERIPHERALS ●
 ● HARD DISKS ● COMPONENTS ●
 ● NETWORK INSTALLATIONS ●
 ● MAINTENANCE ●
CALL NOW FOR YOUR BEST POSSIBLE DEAL
(0604) 35519
 COMPUTERS & HARDWARE ALSO PURCHASED FOR CASH

ALL COMPUTER HARDWARE AND SOFTWARE WANTED FOR CASH OR EXCHANGE
NOTHING REFUSED!!
01 727 0424

COMPUTER REPAIRS
 Specialists in Home and Business Computers, all makes repaired ATARI, AMSTRAD, COMMODORE, SPECTRUM, SINCLAIR etc. Atari Approved Service Centre.
 We also repair Printers, Monitors, Disk Drives etc.
 FREE estimates, all work fully guaranteed
A.M.C., UNIT 4, WESTON ROAD INDUSTRIAL ESTATE, STRATFORD-UPON-AVON, WARCS, CV37 0AH
0789 292269

SOFTWARE FROM 90p **LOOK** **HARDWARE FROM 50p**
FOR ATARI ST
 We don't list 1000's of disks. We have taken the best from over 1000, to make our catalogue. It took up to 5 disks from other PD libraries to make each 1 of ours. Large adverts and large prices, we don't have, just hundreds of satisfied customers. So why don't you get your free catalogue now!!
OUT NOW
 SEND A5 SAE TO WIZARD PD,
 178 WAVERLEY ROAD, READING.
 OR RING MEL ON 0734 574685
 Mon-Fri 10am-7pm
 ALSO AVAILABLE 200 AMIGA PD DISKS

NOVA brings you.....A new concept in Amiga PD - VALUE
NOVA  **FAST, PROFESSIONAL AND FRIENDLY AMIGA PD SERVICE**
HIGH QUALITY PUBLIC DOMAIN DISKS
£2.00 OR LESS
 Two Disk Catalogue £2.00
 We'll get any PD disk for you - AT NO EXTRA CHARGE
 NO EXTRA FEES - Write for overseas postage
 FREE MONTHLY PRIZE DRAW
 ALL Libraries available (Fish, TBAG, AGATron etc.)
 Latest demos, animations etc.
 Discount Hardware/Software/Disk etc.
 I.e. PHOTON PAINT 2 £49.99 SONIX £39.99
 Prices start at \$ 0000
 Cheques/POs Payable to NOVA
NOVA (NG1) 30 Parsons St, Banbury, Oxon OX16 1JZ (0295) 262029

COMBINED POWER
 For £9.99 you can have a 3 hour VHS video extravaganza featuring reviews of such greats as Midwinter and Supercars.
 Please send cheque/postal order to:
Future Images, 21 Inmans Road, Hedon, Nr Hull, HU12 8NQ.
 Cheques made payable to Future Images

16/32 P.D.
PUBLIC DOMAIN FOR THE ATARI ST
Large Selection Prices start from £1.00
 Send A4 SAE with 25p stamp for catalogue or £1.25 for catalogue DISK with extra goodies to:
35 Northcote Road, Strood, Kent ME2 2DH
Tel: 0634 710 788
 Please state type of disk (single/double sided)

Evesham Micros

RETAIL SHOWROOMS

63 Bridge Street
Evesham
Worcs WR11 4SF
☎ 0386-765180
Open Mon - Sat, 9.00 - 5.30

5 Glisson Road
Cambridge CB1 2HA
☎ 0223-323898
Open Mon - Sat, 9.00 - 5.30
Specialist Education Centre

1762 Pershore Road
Cottrellage
Birmingham B30 3BH
☎ 021-458 4564
Open Mon - Sat, 9.00 - 5.30

ALL PRICES INCLUDE VAT AND DELIVERY
Same day despatch whenever possible. Express Courier delivery £5.00 extra.

MAIL ORDER DEPARTMENT

Unit 9 St Richards Rd, Evesham, Worcs WR11 6XJ

Call us now on ☎ 0386-765500
8 lines, Open Mon - Sat, 9.00 - 5.30. Fax: 0386-765354
Technical support (open Mon - Fri, 9.30 - 5.30): 0386-40303

Send an Order with Cheque, Postal
Order or ACCESS/VISA card details

Government, Education & PLC orders welcome
All products covered by 12 Months Warranty
All goods subject to availability, E. & O.E.

ATARI

All our ST prices include: mouse etc. plus 5 disks of software including First Word word processor utilities, 'Neochrome' graphics utility, game and demos.

NEW - 520 STFM DISCOVERY PACK

Good quality, good value package based around the 520STFM computer including 512K RAM, 1Mb Drive and built-in TV modulator. Also supplied is:

STOS Game Creator Outrun
Carrier Command Bomb Jack
Space Harrier Neochrome
First BASIC Atari ST Tour
plus 'Discovering your Atari ST' Book

£259.00
including VAT
and delivery

520 STE POWER PACK

Amazing value, special ST package from Atari! Includes the very latest 520STE with 1Mb drive, joystick, mouse, user guide, 5 disks of public domain software, plus an incredible selection of chart-topping software with a total RRP of over £500! Software included is:

R-Type Pacmania Out Run
Afterburner Starblaster Bombuzal
Double Dragon Super Huey Xenon
Super Hangon Eliminator Gauntlet II
Space Harrier Predator Black Lamp
Overlander Bombjack Starway

£339.00
All for only inc VAT & delivery

STE Memory Upgrades (SIMMS modules)

Simple plug-in modules with fitting instructions. Please note that you cannot mix RAM module types eg. (0.5Mb with 1Mb). We will fit them for you free of charge when bought with any STE; simply add the cost of the upgrade shown below to the price of the STE.

0.5Mb module (upgrades 520 STE to 1Mb) £59.00
2Mb modules (upgrades 520/1040 STE to 2Mb) £175.00
4Mb modules (upgrades 520/1040 to 4Mb) £350.00

1040 STE includes 1Mb drive, 1Mb RAM, with built-in TV modulator £399.00

520STFM 1Mb Drive Upgrade Kit with full fitting instructions £74.95

520STFM 1Mb Memory Upgrade Kit, requires soldering £59.00

Mega ST1 with monochrome monitor £599.00

Mega ST2 with monochrome monitor £849.00

Mega ST4 with monochrome monitor £1099.00

SM124 monochrome monitor £109.00 bought with an ST £99.00

SC1224 colour monitor £279.00

Philips CM8833 14" colour monitor (stereo sound) c/w ST cable £259.00

Vidi-ST 16-tone video frame grabber inc. digitising software £89.00

5.25" External Drive 360/720K 40/80 track switchable £99.00

NeoDesk 2.0 Desktop replacement £34.95

Lynx Portable Entertainment System inc. PSU & 'California Games' £169.00

Amstrad PC1512/1640/2086

Free with 1512 models... Ability and 4 US Gold Games

	SD	DD	AMS H.D.	SD 21MB	DD 21MB	SD 32MB	DD 32MB
EVESHAM UPGRADED MODELS							
MONO 1512	346.96 399.00	433.91 499.00	N/A N/A	542.01 624.00	629.57 724.00	554.78 638.00	641.74 738.00
COLOUR 1512	433.91 499.00	555.85 599.00	N/A N/A	629.57 724.00	716.52 824.00	641.74 738.00	726.70 838.00
MONO 1640	477.39 549.00	554.35 649.00	738.26 849.00	673.04 774.00	760.00 874.00	685.22 788.00	772.17 888.00
CGA (COLOUR) 1640	584.35 649.00	651.30 749.00	825.22 949.00	760.00 874.00	846.96 974.00	772.17 888.00	859.13 988.00
EGA (ECD) 1640	651.30 749.00	738.26 849.00	912.17 1049.00	846.96 974.00	933.91 1074.00	859.13 988.00	946.09 1088.00
2086 MONO	520.87 599.00	607.83 699.00	781.74 899.00	716.52 824.00	803.48 924.00	726.70 838.00	815.66 938.00
2086 CD	651.30 749.00	738.26 849.00	912.17 1049.00	846.96 974.00	933.91 1074.00	859.13 988.00	946.09 1088.00
2086 12" HRCD	694.78 799.00	781.74 899.00	955.85 1099.00	890.43 1024.00	977.39 1124.00	902.81 1038.00	989.58 1138.00
2086 14" HRCD	781.74 899.00	868.70 999.00	1042.81 1199.00	977.39 1124.00	1064.34 1224.00	989.58 1138.00	1078.52 1238.00

12 MONTHS ON-SITE MAINTENANCE PROVIDED WITH ALL MODELS OF PC1512, 1640 AND 2086 FREE OF CHARGE!

Upgrades / accessories

PC1512 memory upgrade to 640K £29.95
Maths Co-processor 8087-2 £119.00
NEC V30 (8088 replacement) £24.95
Archive XL 40Mb Ext. tape streamer £379.00
Amstrad Modem Card V21/23 £99.00
Communicate Fax Card SF £199.00
Enhancer 101 replacement keyboard £74.95
3.5" drive (720K) for SD models £79.95
PC2000 series compatible
5.25" (360K) external drive £84.95
Genius GM6000 Mouse package £32.95
Konix Joystick & Controller Card £28.95

Amstrad PPCs

Low prices on all portable PCs - especially twin drive models
prices in brackets are excluding VAT

PPC512S (£373.04) £429.00 PPC640S (£477.39) £549.00
PPC512D (£433.91) £499.00 PPC640D (£546.96) £629.00

Low price External 3.5" floppy drive (720K) suits any Amstrad PC 1512 1640 inc. DD and HD models, uses no expansion slots £99.95

AMIGA 500 LOW COST RAM UPGRADE

ONLY £55.00 inc VAT & delivery

512K RAM/CLOCK EXPANSION FEATURES:

- ☆ Direct replacement for the A501 expansion
- ☆ Convenient On / Off Memory Switch
- ☆ Auto-recharging battery backed Real-time Clock
- ☆ Compact unit size : Ultra-neat design
- ☆ Uses only 4 D-RAMs for High Reliability
- ☆ Low power consumption

RAM expansion without clock, only £49.00

Amiga & ST 3.5" Drives

- ★ Very Quiet
- ★ Slimline Styling
- ★ Fully Compatible
- ★ Top quality Teac/Citizen drive mechanism
- ★ On/Off switch for Amiga
- ★ External plug-in PSU for ST
- ★ Throughport for Amiga
- ★ 1Mb unformatted capacity

Fully compatible, high quality 3.5" external drives for the ST and Amiga

Amiga version only £64.95

Atari ST version only £69.95

Prices include VAT & delivery

Western Digital Filecards

Upgrading your PC to hard disk? Look no further, we offer the best prices on top quality hardcards. Thorough documentation supplied, low power consumption, with free XTree file management software and Speedread. For Amstrad PC users we supply hardcards tested and formatted, with our simple software installation procedure. The best packages available!

21MB...£225.00 32MB...£239.00 41MB...£279.00

3.5" disks

25 pack in plastic case
25 pack in 100 cap box
Fully guaranteed double sided media

5.25" disks

in 50 cap box
in 100 cap box
Fully guaranteed double sided media

PRINTERS

All prices include VAT, delivery and cable

star

We use and recommend Star printers since they do offer an unbeatable combination of features, print quality, reliability and value. At our special star prices, we can provide on-site maintenance contracts for only £5.75 extra.

Star LC24-10 feature-packed multifont 24 pin printer, amazing low price ... £239.00
Star LC10 best-selling 144/36cps printer, 4 NLQ fonts, inc. 2 extra ribbons free .. £159.00
Star LC10 7-colour version of above printer, inc. 2 extra black ribbons £209.00
Star LC15 wide carriage version of LC10 £329.00
Star LC24-15 wide carriage version of LC24-10 £409.00
Star FR-10 new Professional 9 pin 300/76 cps, 31K buffer, 16 NLQ fonts, EE-PROM configuration memory and 12 months on-site maintenance £399.00
Star FR-15 9 pin as FR10, wide carriage version £499.00
Star XB24-10 Professional 24 pin: 27K buffer, 4 SLQ & 25 LQ fonts with EE-PROM configuration memory and 12 months on-site maintenance £499.00
Star XB24-15 wide carriage version of XB24-10, with 41K buffer £649.00
NEC P2+ budget 24pin £299.00
Olivetti DM100S Super 9 pin 200/30 cps, inc. 1 year on-site maintenance! ... £129.95
Amstrad DMP3160/3250Di good value 10" 9 pin £169.00
Panasonic KXP1081 reliable budget 10" printer 120/24 cps £159.00
Panasonic KXP1180 super new 9 pin with over 3400 typestyles, 11" carriage £179.00
Panasonic KXP1124 good quality 11" multifont 24pin printer £259.00
Panasonic KXP1624 wide carriage version of KXP1124 £399.00
Epson LX800 popular 10" 180/25 cps £159.00
Epson LQ550 (was LQ500) good 24pin printer 150/50 cps £349.00
Mannesmann Tally MT-81 130/24 cps £149.00

- Fantastic hand-held portable 16-bit video games machine
- Excellent built-in high definition, full colour LCD display
- Capable of displaying up to 16 colours out of a possible 4096
- 32-bit audio processor produces superb 4-Channel sound
- Left or right hand play easily achieved with screen flip option
- Multiplayer Competitions possible using COMLYNX cable (supplied) to connect with other Atari Lynx systems
- Free California Games (multiplayer) games card supplied
- Uses 6 x AA batteries (not supplied) or AC adapter (supplied)

ONLY £165.00 including VAT and delivery

Game Cards now available:

Blue Lightning	£22.50
Gates of Zendoon	£22.50
Electro Cop	£22.50
Chips Challenge	£22.50
Gauntlet III	£26.00
Rampage	£26.00

ATARI Lynx Portable Games System



IN STOCK NOW



A500 512K Flight of Fantasy pack includes 4 software titles and TV modulator	£359.00
A500 512K Batpack includes 4 software titles and TV modulator	£359.00
Amiga 500 1Mb Batpack (OR F.O.F. Pack) features our 1Mb RAM Upgrade fitted	£399.00
Amiga 500 Batpack (OR F.O.F. Pack) with Drive includes our 3.5" External Drive	£419.00
Amiga 500 1Mb Batpack (OR F.O.F. Pack) with Drive features our 1Mb Memory Upgrade plus 2nd 3.5" External Drive	£459.00

Amiga B2000 Pack includes XT Bridge Board and Commodore 1084D Colour Monitor	£1199.00
Amiga B2000 32Mb Pack offer as above; includes 32Mb Western Digital Filecard fitted	£1438.00

External 5.25" 40/80 track switchable drive	£114.95	MiniGEN Genlock Adapter	£95.00
Omega Projects MIDI interface	£29.95	Philips CM8833 colour monitor inc. cable	£259.00
Vortex System 2000 40Mb Hard Disk	£499.00	Contriver Hi-Res replacement Mouse pack	£22.95
Vidi-Amiga Inc. Vidi-Chrome	£110.00	Amiga 500 dust cover	£4.95

CBM A590 HARD DRIVE

Good quality 20Mb Hard Disk from Commodore, including its own PSU. Features sockets for up to 2Mb of FAST RAM expansion (see below). 80ms Access time, with up to 2.4Mb/sec transfer rate. Will autoboot when used with Kickstart 1.3. Has built-in cooling fan.

Only £369.00

A590 512K RAM Upgrade kit	£36.00
A590 1Mb RAM Upgrade kit	£70.00
A590 2Mb RAM Upgrade kit	£135.00
RAM upgrades fitted free when bought with A590.	

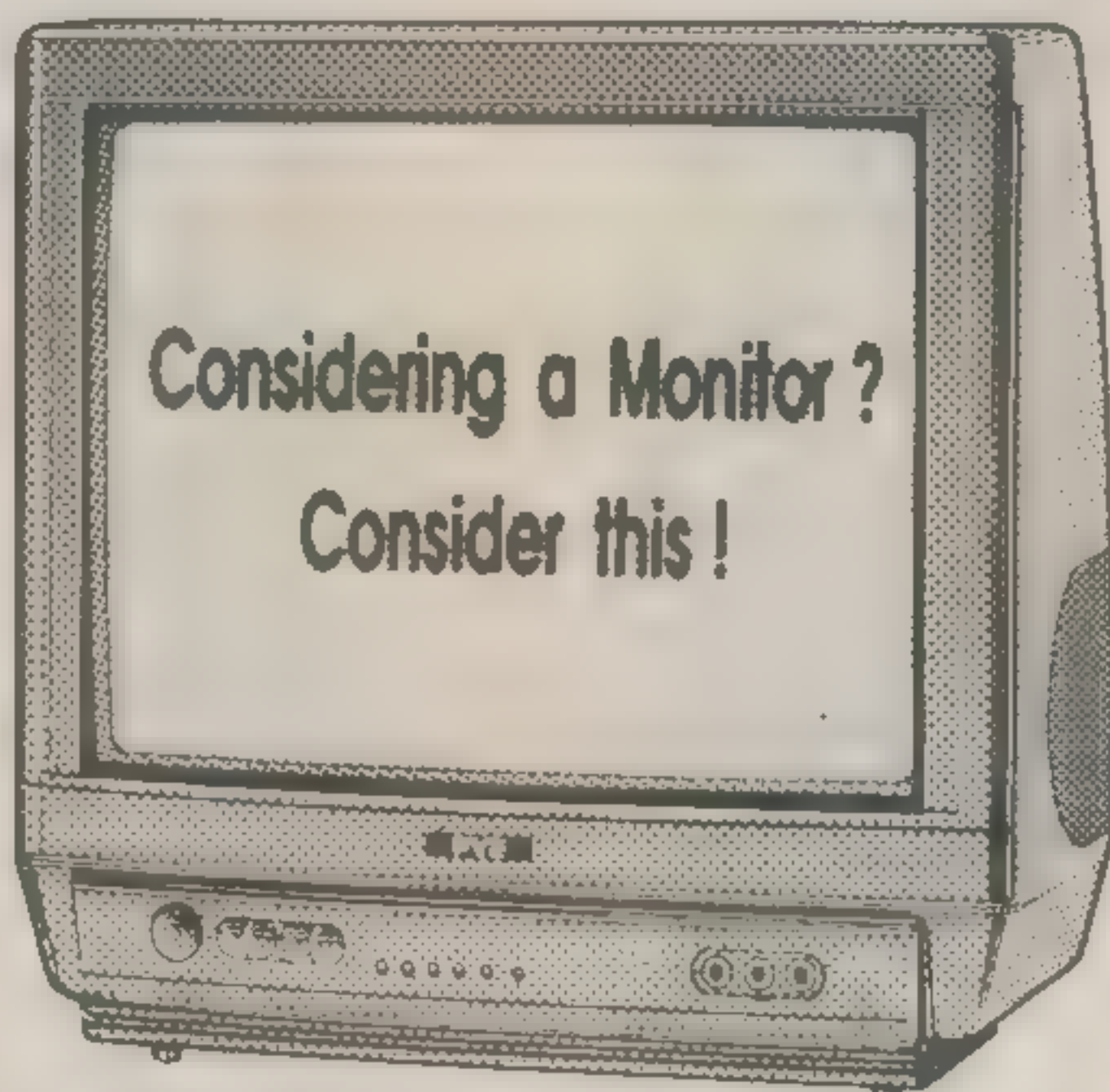
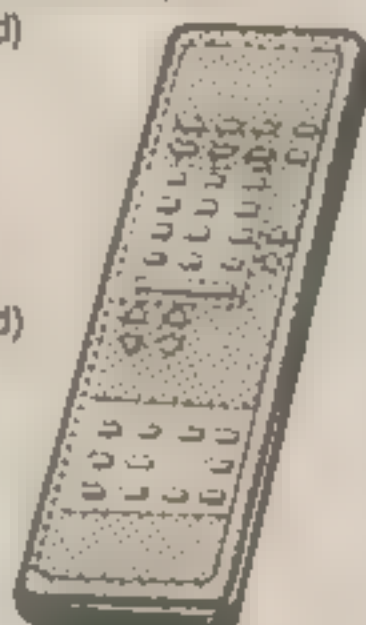
PYE 15" FST TV/Monitor (MODEL 2325)

With its dedicated monitor input, this model combines the advantages of a high quality medium resolution monitor with the convenience of remote control Teletext TV - at an excellent low price!

- ✓ Suits ST or Amiga (cable supplied)
- ✓ Teletext facilities
- ✓ Full infra-red remote control
- ✓ SCART Input/Output Connector
- ✓ Audio/Composite Video inputs
- ✓ 60 TV tuner presets
- ✓ Headphone private listening jack
- ✓ External aerial input (loop supplied)

£249.00

Includes VAT, delivery and computer connection lead



Considering a Monitor?
Consider this!

ATARI ABC-286

Prices include Olivetti DM100S printer and Logotron '8-in-1' integrated software package!

- ☆ 80286 Processor with 8Mhz clock speed
- ☆ 640K RAM standard, expandable to 1Mb
- ☆ 3 AT/XT compatible Expansion slots
- ☆ 1 RS232 Serial and 1 Parallel ports
- ☆ Disk controller supports 2 floppy & 2 hard drives
- ☆ One 3.5" (1.44Mb) floppy drive and a 30Mb hard disk drive fitted as standard
- ☆ Socket for 80287-8 Maths Co-Processor
- ☆ Video graphics adapter supports EGA, CGA, MDA and Hercules, with digital video port
- ☆ 102-key DIN spec. AT-Protocol keyboard
- ☆ Supplied with MS-DOS 3.3 and GW-BASIC

ABC-286 S.D./30Mb with Mono Monitor £ 999.00

ABC-286 S.D./30Mb with EGA Monitor £1149.00

Optional 5.25" 1.2Mb Internally fitted floppy drive available £119.00

Prices include VAT/Delivery

OLIVETTI DM100S



Top value, high performing 9-pin dot matrix printer

- 200cps draft, 30cps NLQ print speed
- Pica, Elite and Condensed printing
- Standard Centronics Parallel interface
- Friction and Tractor feed
- Optional auto cut sheet feeder available

ONLY £129.95

Cut sheet feeder available for only £79.95

Prices include VAT, delivery and 12 months on-site maintenance!

olivetti PCS 86/286

FREE WITH ALL MODELS

- ✓ 12 Months On-Site Maintenance
- ✓ Genius GM-U2 Mouse with software
- ✓ Logotron 'Eight-In-One' Integrated Package
- ✓ Top 10 Solid Gold Games package



FREE WITH EVERY PCS286: OLIVETTI DM100S 9-PIN PRINTER!
or if you prefer, £129.95 inc. VAT allowance on another printer of your choice.

- ◆ 101/102 key AT-layout PS/2 compatible keyboard (Mini-DIN)
- ◆ 1 x RS232 Serial interface and 1 x Centronics Parallel interface
- ◆ VGA compatible (OVC) display controller fitted standard
- ◆ VGA monitors: 14" Colour / 12" Mono (dot pitch 0.39mm)
- ◆ Socket for Optional Maths Co-Processor
- ◆ Hard Drive versions: 20Mb (27ms access time) / 40Mb (29ms)

PCS 86

- ◆ NEC-V30 microprocessor 10Mhz clock speed, 0 wait states
- ◆ 640K RAM standard, upgradeable to 2.5Mb on motherboard
- ◆ Single or Twin 3.5" floppy drives with 720K formatted capacity
- ◆ 3 Full size XT-compatible 8-bit expansion slots

PCS 286

- ◆ Intel 80286 microprocessor 12Mhz clock speed, 1 wait states
- ◆ 1Mb RAM standard, upgradeable to 4Mb on motherboard
- ◆ Single or Twin 3.5" floppy drives with 1.44Mb formatted capacity
- ◆ 3 Full size expansion slots; 1 x 8bit and 2 x 16bit (XT/AT style)

	SD	DD	SD 20MB	SD 40MB
PCS86 MONO	649.00 746.35	749.00 861.35	849.00 1091.35	N/A N/A
PCS86 COLOUR	899.00 1033.85	999.00 1148.85	1199.00 1378.85	N/A N/A
PCS286 MONO	N/A N/A	1049.00 1206.35	1149.00 1321.35	1249.00 1436.35
PCS286 COLOUR	N/A N/A	1299.00 1493.85	1399.00 1608.15	1499.00 1723.85

Logotron 'Eight-In-One' package includes Wordprocessor, Database, Spreadsheet, Graphics etc. 'Top 10 Solid Gold' games pack includes Arcade, Adventure, Creativity, Simulation & Strategy titles.

ACCESSORIES

5.25" 1.2Mb/360K drive with controller	£129.95
PCS286 2Mb RAM Upgrade Kit	£175.00
PCS286 4Mb RAM Upgrade Kit	£350.00

PROGRAMMERS!

"The Best Amiga conversion Ever - Yes Ever" - (Ninja Warriors) ACE Magazine

"An absolutely Brilliant Conversion" - (Ninja Warriors) ZZAP 92%

"The best shoot-em up available" - (Silkworm) Commodore User 93%

"Awesome, totally awesome" - (Silkworm) Amiga Computing 96%

Reviewers are no fools and as everyone knows they are hard to please. We at The Sales Curve strive to produce games which are not only fun but represent the best in technical advancement and quality. The credits listed above on our most recent products, Silkworm and The Ninja Warriors, reflect this fact.

If you have the ability to produce games which will receive such rave reviews, then you really should talk to us. We have massive amounts of interesting in-house work for exceptionally talented and dedicated individuals.

We are looking for experienced graphic artists of the highest calibre and programmers to work on either:

- 16 bit coin-op conversions.
- Original products on all formats
- 16-Bit programmers for high profile coin-op conversions.
- Nintendo (We are one of the few European companies that really does have the endorsement of Nintendo and the technical information that accompanies that endorsement.)

We are based in smart, comfortable offices in Central London and offer a happy working environment with good pay and bonuses, training where applicable and we can help with relocation to London.

If you would like to have an informal chat about the many career opportunities within The Sales Curve, please telephone Daniel Marchant, Development Manager on 01 585 3308 NOW!!

PROGRAMMERS! DO YOU WANT TO EARN OVER £500,000 A MONTH?

We need your help! All our in-house programmers have left and gone to work for The Sales Curve Ltd. They have such nice offices and people, and they even pay their programmers! We are so desperate that if you work for us we will promise to pay you **£500,000** a month, we will hint at a company car, we will tell you that you'll get your *VERY OWN OFFICE* and we will spread rumours about how we bought you a ten bedroom stately home in Buckinghamshire!

If you are very talented, easily conned into working for free, are willing to work flexible hours (around 23 a day), have difficulty in speaking, have no ambitions, want no friends, can work without any hardware, can program, compose music, draw graphics, make the tea, answer the phone, walk the dog, Hoover the floor, paint the walls, dig holes and read tarot cards all *simultaneously*...we want to hear from you!

But please, please, please, don't phone those awfully nice Sales Curve people, because if you do, you'll never phone us. And whatever happens, try to avoid Daniel Marchant (please don't phone 585 3308 and ask for Daniel)...he is simply too friendly and clued up to be a nasty, mean, stupid project manager!

MEGA BUCK SOFTWARE SAYS...DON'T PHONE THE SALES CURVE

PROGRAMMERS

We are looking for talented people to join our successful team in **SWITZERLAND!**

A good knowledge of machine code in either Z80, 6502, 8086, or 68000 is required.

WE ARE WAITING FOR YOU!

If you think you've got what it takes then contact Mark Grimmer.

Oh! Not to forget, we will pay your flight to the Swiss mountains....

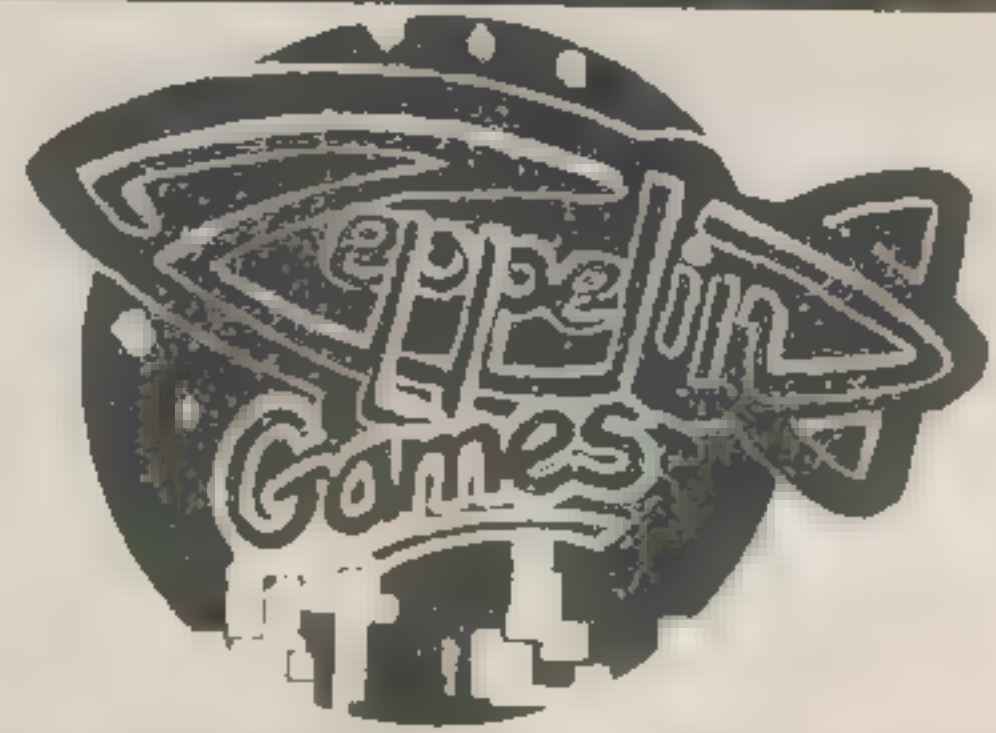


LINEL,

Guetlistrasse, 9050 Appenzell, Switzerland.

Tel: 01041 71 87 49 19

Fax: 01041 71 87 49 21



Zeppelin Games eat, sleep and dream computer games!

We have produced award winning titles like Draconus, right through to sheer commercial licences like Kenny Dalglish Soccer Manager. We have recently moved to larger premises in Durham, and our continuing expansion programme means we require your skills as Spectrum/Z80 programmers to maintain the influx of quality Spectrum software in to our company.

If you think you have the skills to write Spectrum software or even wish to develop your skills on a free-lance basis with Zeppelin, we are waiting to hear from you.

Please write in confidence to:

**David Taylor
Head of Development
Zeppelin Games Limited
9D Ash Way
Houghton La Spring
Durham DH4 6JW
or phone 091 3857755**

PROGRAMMERS REQUIRED

Gremlin require professional programmer to work in-house at our Sheffield offices. If you are practised in 68000, 8086, Z80 or 6502 and have the ability to work alongside one of Europe's most innovative teams we would like to talk with you.

Alternatively we are always happy to view and advise on any product submission that may be presented to us with the view to publishing.

Contact James North-Hearn today for an informal and confidential talk.

Gremlin Graphics Software Limited.
Alpha House 10 Carver Street Sheffield S1 4FS
Telephone Number 0742 753423



ARGONAUT SOFTWARE

We are expanding our games development group and have vacancies for talented programmers, project managers and graphic artists with experience on all popular microcomputers and consoles. You will be working in-house on exciting projects together with a large team of fellow games creators at our new North London offices. Top salaries paid according to experience, ability and flair.

PROGRAMMERS will require a good assembly language foundation with experience in at least one of 68000, 8086, 6502 and Z80 machine codes. You should be willing to adapt to new machines and architectures, and will be involved in the creation of quality video games. Our development systems are custom built to provide performance and flexibility on a multitude of larger machines.

PROJECT managers must be experienced at managing multi-programmer projects on multiple formats. You will have a technical background and assembler programming experience. You must appreciate playability goals, feasibility and time constraints. You must be able to keep the team focused and on target.

GRAPHIC Artists must be good at both sprite animations and backdrops. Must be able to cope with designing artwork within the limits of each computer's capabilities. Must be able to work interactively with programmers and accept constructive criticism. Above all you must be innovative.

Please send your CV to: Jez San, Argonaut Software,
7 Millway, Mill Hill, London, NW7 3QR.

Or call Jez or Richard on (081) 906 3744, fax (081) 959 5059

AMIGA PROGRAMMERS REQUIRED

*Digigraphic Ltd, Programmer of Amiga
and Atari Games for many years.*

We are currently seeking Amiga programmers to work in house in the Midlands area. Programmers must have a good working knowledge of 'C' and/or 68000 Assembler. ■ accepted you would be working with existing Programmers and Graphics Designers on a multitude of leading edge projects. These include industrial sector Audio/Visual presentation systems and CD ROM based projects.

AREAS of expertise which may prove advantageous in any application are IFF sound image and anim experience, CD ROM experience, DOS programming, data compression/decompression experience, Multi Media, Hyper Media, Hyper Text, user interface design, hardware design, device drivers, C64, IBM PC and Archimedes programming. These are not requirements remember primarily we are after good general Amiga programmers.

OUR existing development environment is based around A2000 machines all networked via Hydra network cards. Amigas are 68020/030 turbo card machines with local hard disk and access via the network to two Sony Magneto Optical subsystems (600 Meg re writable CD units). Add to this our existing base of in house tools, code modules and reference material and you have probably the finest development environment in Europe! We also have a full range of support technology, for example five digitisers, VHS video deck, U-MATIC video deck, sound equipment, CD ROM, 8mm, video deck, genlocks, camcorder, digital still camera etc etc.

We can offer a good package of remuneration to the right candidates and will also help with any relocation expenses if required. The position is full time and candidates must be prepared to work ■ house, freelance programmers need not apply. Please apply in writing to Mr Lee Gibson at the address below, examples of your work will be required, (all disks will be returned), as will a CV of programming experience to date.



DIGIGRAPHIC LTD



1 The Terrace, High St, Lutterworth, Leicestershire LE1 6BA
Telephone (0455) 558855 Fax (0455) 556067

DO YOU WANT TO BECOME A PROGRAMMER?



Established 1968

**Move across to the rewarding
world of IT.**

We have a series of short and long
term training programmers in
Computing and Information
Processing.

- * C & G 424/425 Certificate in applications programming.
- * C & G 418 Computer Programming & Information Processing.
- * Evening courses in DBASE, WP, Spreadsheet Analysis.
- * Evening courses in Pascal, BASIC & COBOL.

Contact Central London College on
01-580 4596.

TRAINING FOR YOUR FUTURE

PROGRAMMERS WANTED

We are looking for talented **Programmers/Graphic Artists** to work either In-House or Freelance for our expanding operation. You will be working on Home Computers and Consoles, so if you can code 68000/68030/68040/Z80/6502/8086, we are waiting to hear from you.

Salaries are all negotiable according to experience.

We are Video Images Ltd, who are you?

Call Dave Colley on 061 432 5230 now!

Alternatively send your C.V. via Fax to the same number.



SPECTRUM 128k +2A with £400 worth of games, Lightgun, 6 games v.g.c. All for £235. Phone 061-707 3906.

ATARI 520STFM with over £700's worth of original software including Elite, Dungeon Master, STOS, Carrier Command etc. excellent condition. £275 o.n.o. Phone 091 274 3320 after 5.30pm weekdays.

AMSTRAD CPC464 with colour monitor, £150 games, joystick, manual, excellent condition £200 o.n.o. Tel: 0705 478234.

AMIGA software sale - Blood Money, Xenon 2, Bloodwych and many more. All originals, reasonable offers. Tel: 01-542 2020 eves.

AMSTRAD CPC6128, colour monitor, tape recorder + lead, Lightpen, tape/disc games, blank tapes + discs, Amstrad Action magazines, sell for £295 o.n.o. Phone 0222 383658 after 4pm.

ATARI 520STFM in excellent condition with all leads and manuals etc. Original packaging, complete with £150 of games only £200. Phone 094585 566 after 6pm.

PC engine, the ultimate games machine and TV Pal convertor, plus three games, excellent condition. £200 Tel: 0484 720353.

ATARI STFM 1Mb 0.5Mb internal drive plus software, also Scart lead £200 o.n.o. hardly used. Phone Phil 0942 497352 evenings.

AMSTRAD PC464 colour monitor for sale, boxed as new. Phone 01-949 2317 Kingston-upon-Thames.

OLIVETTI PC1 IBM compat. 3 1/2-inch disk drive, mono monitor £150 no offers. Buyer collects. Richards 0734 793388 Wokingham, Berks.

SEGA 16-bit megadrive plus two cartridges £150.00. Atari ST with games and PC emulation software £230.00. Telephone: 0702 78251.

SHARP MZ-700 original software, all sorts. Sell one third original price. Also info on Sharp Users Club. Tel: Paul, Leeds 0532 498985 evenings.

SPECTRUM+2, Microdrive, I/F 1, printer, backup device, joystick, games and many extras. Offers to Steven on 0928 569762. AM v.g.c.

COMMODORE 64/128, 1570 disk drive, 1701 colour monitor, joystick, games, utilities, disks, books, all connections £365 o.n.o. Brilliant condition, call Andrew on 0492 79026 9-5.

AMIGA games: Space Quest III £12, Future Wars £1, Voyager £8, Willow £8, Lancaster £8, Millennium £9, Bismark £6, Hostages £6. Many others 01-570 3690.

AMSTRAD SM2400 modem, as new, boxed £150 o.n.o. Phone 0703 871960. Colin, after 6pm.

STFM with £300 worth of games including Populous, Eliminate, Bloodwych etc. boxed as new. Sell for £230 o.n.o. Phone 01-208 3622.

FOR sale Spectrum+2A with 3.5-inch disk drive and +D interface, lots of magazines with few games £220. Tel: Markfield, 243005 Leic..

AMIGA software. Deluxe Paint £6, Deluxe Paint 2 £15, Home Accounts £14, Weird Dreams £7, Virus Killer £5, Myth £7, F-18 Interceptor £7. Ring 0224 824904.

EXPERT cartridge for C64 £20. 3 slot mother board £8. EasyScript, Future Finance, Pet Speed original £10 the lot. Mansfield 643309.

AMIGA A590 hard disk, 4 months old, £300. 1084 colour monitor £140. Star LC10 colour printer £140. AF880 disk drive £50. Ring 0224 824904.

AMSTRAD PC1640 CD 32Mb hardcard twin

360K floppy, video backup card, mouse, Mini-Office, GemDraw £550. Ring Robin, Brighton 0273 698059 evenings.

150+ Amiga mags: The One, Games Machine, A.U.I. etc. Cost £200+ Offers, Jason 0493 781700 evenings, can deliver 20 mile radius of Great Yarmouth, Norfolk.

ATARI 520ST, colour and mono monitors, Supra 20Mb drive, modem, digitizer, 1Mb drive, over £2k software. £1150 o.n.o. Phone Mark 0705 599248 after 7pm.

COMMODORE 1581 3 1/2-inch disk drive £125, and C128 512k memory expansion £125 plus lots of software. S.A.E. list: Dave Priestley, 31 Hamfield, Wantage, Oxon, OX12 9EQ.

BBCB, 40/80 d/drive, solderless sideways ROM/RAM, 16K RAM, 8 ROMS including Dump-master, Disc Doctor, 100+ discs, games and software, Mini Office II, magazines, manuals, £400 o.n.o. Tel: 0734 667210.

VIDEO camera b/w, high res camera £50. Colour camera C.C.D. £110. Both as new with lens. Suit digitiser or V.C.R. Tel: Dave 061-798 0456.

LINNET intelligent v21/23 modem plus cables and power unit. Excellent condition, never used £100 for computers. Telephone: Paul on 061-707 3765 after 6pm.

COMMODORE compatible colour printer, Star LC10C boxed, unused, £125. 06737 520.

ACORN Electron, data-recorder, leads, books, software, £50 o.n.o. Tel: 0942 876379 after 6pm.

ATARI 1040STF plus Atari monitor £350. No offers, buyer collects. Condition as new. Richards 0734 793388.

MASTER 512, no mouse, Problem Solver, dual drives, colour monitor, Teletext Adaptor, £580, various ROM and disc software available

Tel: 0452 506361 Glos.

SPECTRUM 48k with games etc. offers. Wanted TasSpell, TasCalc, TasPrint, TasSign, Masterfile, Wordmaster, Headliner, Typeliner, Chuckie Egg and printer for Spectrum +3. Phone: 0782 612393.

AMIGA 500, KS1.3, 4 months old, with A501 expansion, AF880 external drive, £150 software, still under guarantee, delivery included £450. Ring Aberdeen 0224 824904 after 18.00.

SELL or swap Atari 520STFM. New mouse, joystick, software, make reasonable offer, or will swap for Amiga. All in excellent condition. Also have LC-10 printer. Tel: 0452 300167.

ATARI s/ware. Tracker, Wizball, Eco, Sentinel, StarGlider, Arkanoid, £5 each GFA Basic Compiler & Interceptor V2 £12. Phone Durham 091-3861493.

PC books: Wordstar 1512 handbook £10, Supercalc 3 handbook £10, Desktop Guide to Desktop Publishing £5, brand new. Write to: 34 Middleton, Menstrie, Clacks, Scotland.

COMMODORE version Star LC10 mono printer, spare ribbon, v.g.c. £100 Phone Chris Stevenson, Heathfield 04352 3082.

ATARI 1040STFM with Atari mono monitor and Star LC10 printer, loads of books and programs only £500, call Mark on Camberley 0276 31818.

ATARI 130XE disk drive with "Happy-inch" enhancement fitted about 500 progs. on disks, books, manuals etc. in mint condition £225. Phone Arthur 091-4544681.

NEWBRAIN 32k built-in display, all leads for TV, cassette etc. supplied, loads of software plus two manuals, £50 o.n.o. Hours of fun guaranteed! Phone Dave 0298 813793.

CBM64 with games and stuff £110. Disk drive with games £100. Tel: 0222 777511.

COMPUTACHAT

Are you a computer games player, programmer, musician or artist?

Would you like to talk to others like you to swap hints, tips, pokes or even software (must be originals or PD).

Are you interested in forming a group to buy blank disks or cassettes in bulk or would you just like to chat in general about computer orientated activities.

RING COMPUTACHAT ON
0898 338939

EXPERTS ON HAND TO ANSWER ADVENTURE QUERIES

TME PLC, Box 54, South West Manchester M15
Calls charged at 25p/min "cheap" rate - 38p at all other times

ADVENTURE HELPLINE

Do you play computer adventures? Have you ever been faced with a seemingly impossible situation?

WE CAN HELP

Our adventure rescue team work 7 days a week until midnight and will be pleased to answer your queries. We offer help with any games or any computer - so if you are tearing your hair out ring this number NOW!

0898 338 933

T.M.E Plc 10b Hulme Hall Road, Manchester M15 4LY

Calls charged at 25p min "cheap" rate/38p at all other times

COMPUTER AUCTION

Saturday 12th May at
Bowlers, Longbridge Rd,
Trafford Park, Manchester.
Sale starts 11.00 am, viewing
and testing from 8.30 am.

About 1000 lots of computer equipment including: IBM, Compaq, Amstrad, Toshiba, Apricot, Epson and other IBM compatibles. Apple and IBM software, printers, hard disks, modems, monitors, consumables etc.

For your catalogue ring:
Computer Connections on:
025481 3316.

P.S. Ring should you have any immediate computer requirements.

TEN Amsoft three inch discs, Skateball and Time and Magic, both for Spectrum+3, any offers? Phone Gary on 01-657 5152. May swap for Amiga stuff.

AMSTRAD PPC640D. Excellent condition in-built modem etc. Genuine reason for sale upgrading £420. Tel: evenings 0275 822794, nr. Bristol.

FOR sale: many Amstrad CPC games, magazines, singles and books, including NCE 2-71. Contact Andrew Wong, 10 Gerlan, Tywyn, Gwynedd, LL36 9DE. Tel: 0654 711629.

SILVER Reed EXP800 Daisywheel printer. Totally as new, very little use. Wide carriage, 40cps, manuals, spare ribbons, £230, offers. Tel: 0275 822794 Avon evenings.

ATARI SC1224 colour monitor £180. Cumana external 1 mb drive £45. 16 DRAM chips 512k £20. Phone 0435 882121.

AMSTRAD 6128 plus colour monitor, system software and manuals. Perfect condition and only £200. Phone Alistair on 031-665 3466, evenings or weekends.

A500 1.3ROM, A501, Cumana drive, Prosound Designer Gold Midi/sampling hardware/software, MM5000 midi keyboard, plus joysticks, software, mat, and original software for £450. Tel: 0745 338932.

AMIGA 1000 1/2Mb plus 8600 Genlock and 1081 monitor. Software publishers choice Digiview and Deluxe Paint II. Offers invited. Telephone: day 0932 824462, eves 0276 62696.

NINTENDO Gameboy, 3 games, video-lig cable and headphones. New condition, instructions, all for only £120. Phone for details, ask for Steven. Phone 0484 606403.

NEC colour P7 printer. 24 pin, 360 x 360 dpi, NLQ76/draft 216cps. 8K buffer. Trac-

tor feed and stand, little used home £550. 01-232 2732.

PCW Starglider, Chess, Corruption, Myth, Challenge, Gnome, Tetris, Harrier, DTP, Matchday, MOP £55. Swap Micro Design 0920 468264. Radio Caroline 558khz CM Infoline 0884 258641.

CITIZEN 120D printer £100 A501 RAM expansion £60. Buyer collects. Mick Tate, 22 Welland Avenue, Gartree, Market Harborough, Leicestershire. Tel: 0858 66068, deliver locally.

ARCHIMEDES A310M colour, Risc OS, 20Mb H.D., 4 slot backplane, 5.25 disk buffer, manuals, excellent condition, £999 o.n.o. Phone David Rowe on 0895 71815.

FREE EGA480 paradise colour card when you purchase my Philips EGA 9053 monitor, brand new, only £290. Ring: 0933 400613 after 7.00pm.

COMMODORE 128 brand new, lots of books, discs etc., still boxed, excellent condition. Quick sale £100. Tel: Basingstoke, 468764 0256.

ATARI ST colour monitor includes lead £95 o.n.o. VIP Professional and other serious software for sale. Ring 061-434 4628. Ask for Daevid, wanted Neodesk 2.

AMSTRAD green screen GT65 monitor, suitable for CPC464, 664 and 6128 £35 only. Ring Mr Jivanjee, evenings on 01-908 0909.

BROTHER EP44 24-pin dot matrix portable electronic typewriter/printer RS232C serial input/output port. Use as typewriter or printer for C64, Apple II etc. £90 o.n.o. Tel 0254 63555 ext. 496 evenings.

I have a SuperBrain PC with a loggabox printer, all working. Any offers please write: K. Forbes, 43 Priory Court, Harlow, Essex.

AMSTRAD CPC464 for sale with colour monitor, Lightpen, Pro-5000 joystick, over

70 games including Ghostbusters 2, Afterburner and Double Dragon. All for £180 o.n.o. If interested call 0254 664445.

MDI interface for Spectrum and Amstrad CPC computers, new unused, £20 each. Tel: 0622 725327.

ATARI spares, keyboards, cases, PCB's, switches, sockets, cables, manuals, PSU's, cassette decks/parts, buttons, Atari 8-bit parts 400/800 600/800XL, 65/130XE, limited amount. Details: 0743 249094.

SPECTRUM Wafa drive with wordprocessor and six Wafa plus tape to Wafa drive backup £20 o.n.o. Write: M. Stevens, 6a Lydford Road, Paddington, W9 3LU.

AMSTRAD 464/6128 software disc Devpac 80 £20. Hisofts "C" £20. Laser Genius £12.50. Image System £12.50. Interdictor Pilot £10. Biggles £10. Computer Hits £10. Tel: 0908 220486.

AMIGA 500 1 mb with games, joysticks and many magazines, sell for £360 or will swap for SX64 with printer. Tel: 021-373 9178. Buyer collects.

ATARI STFM, boxed, v.g.c. including mouse, joystick, Datal Electronics Trackmaster, mags, two disc wallets, coverdiscs and games including Xenon II and The Untouchables, £275. 0527 21216.

AMSTRAD PC2086 VGA computer 640k 14-inch VGA colour monitor, twin 3 1/2-inch drives, 32 megabyte hard card plus extras £800 o.n.o. Tel: Jim, Chester 0244 314329.

TATUNG Einstein colour micro. Disk drive, software, including WP, D/Base, S/Sheet and games. All manuals, excellent condition, bargain £70. 051-632 6711 A/phone 24 hrs.

MAGNETIC stripe card reader/encoder. Neuron CT670-3A reads & writes on all 3 tracks. Internal power supply/RS232, mint £800 Julian 01-340 2968.

CBM64 computer, disc drive, printer, datasette, modem, software, v.g.c. £220 o.n.o. Tel: 0622 725327.

ATARI STFM, 1Mb internal, software, joystick, quick sale needed, £200. Tel: 0908 649187, ask for Tony.

AMIGA games: Chase HQ, Interphase, Silk-worm, Space Ace, Future Wars, Shadow of the Beast, and lots more £10-15 each. All originals. Tel: 01-539 7776.

CPC464 plus colour monitor, £500 worth of games Pacmania, Gunships, etc, loads of magazines, excellent condition £220. Phone Sunderland 091-5496252.

ATARI PC3 PC compatible, 640k, 8mz, 2 x 5.25, Amber EGA monitor, mouse, Gem, GW Basic, MSDOS 3.2 £450. Glos 0452 304093.

SEGA megadrive for sale. Scart megadrive inc. three games, two months old, boxed, worth £310, sell for £230 or offers. Ring 021-783 8894 ask for Norman.

CBM64 & 128 software. Cassette and diskette, send S.A.E. for list. Iain Hawker, Solway Place, Holm Street, Moffat, DG10 9EB.

CPC464 colour monitor, mouse, interface, joystick, books, manuals, mags, loads of games + Atari games console thrown-in inc. games. The lot £250 o.n.o. Tel: 061-723 2818.

ARCHIMEDES A310 colour monitor, Riscos, manuals, games including ZArch Conqueror, Interdictor U.I.M. £800 only, phone anytime.

ATARI ST unused games for sale for hand-capped children's charity. Send £10 for four games. C.B. Allen, 29 Napier Road, Cowley, Oxford, OX4 3HZ.

ATARI SC1224 colour monitor £180. Cumana external 1 mb drive £45. 16 DRAM chips 512k £20. Phone 0435 882121.



ONCE BYTTEN

59 Swanley Road
Welling
Kent DA16 1LL
Tel: 01-304 2631 Fax: 01-304 7214
Mon-Sat 10am-8pm Callers by Appointment

PLEASE NOTE FROM 4/5/90 OUR PHONE NUMBER
WILL BE 0474 567964

CLEAR OUT SALE!

We're moving out, so we want to move out the following bargains!!
All goods new unless otherwise stated. Many are one-offs so ring first.
All prices include VAT. P&P free on software, otherwise ask.

SCANART - Clipart - PC	£19.95
DRAWART - Clipart - PC	£19.95
TIMWORKS DTP - PC	£49.95
3M DC2000 CARTRIDGES	£17.50
CENTRONICS SWITCHBOX	£18.95
MAP CASHBOOK ACCTS - PC	£75.00
USED PSION ORGANISER XP	£69.95
USED ALDUS Pagemaker 3	£150.00
NEC 3.5" AMIGA DRIVE	£69.00
AOC EGA MONITOR	£259.00
LOGITECH SCANMAN+ - PC	£119.00
FLIGHT SIM II - AMIGA	£25.50
TIMWORKS LITE + FONTS	£49.95
TYPOGRAFICA FONTS - PC	£17.50
JOYSTICK / MOUSE SWITCH	£9.95
PAGEFLIPPER F/X	£25.00
SUPERBACK - AMIGA	£29.00
USED XEROX VENTURA - PC	£129.00
USED SONY PRESTEL UNIT	£125.00
USED ORCHID JET 386 (AT)	£295.00
ALLOY 500 TAPESTREAMER	£250.00
USED OKIMATE 20 - AMIGA	£84.95
USED YAMAHA MIDI KEYB	£39.95
CITIZEN HQP40 24 PIN PTR	£299.00
GVP 68030/68882 28Mhz	£849.00
AMSTRAD SM2400 MODEM	£199.00
USED CSA 68020 FOR AMIGA	£349.00
QUICKJOY II JOYSTICK	£8.95
COMP PRO EXTRA J/STICK	£12.50
IBM JOYSTICK ADAPTOR	£19.95
10 BOXED 3.5" D5DD DISCS	£6.95
PACK 25 5.25" D5DD DISCS	£6.95

AMSTRAD NETWORK KIT (3)	£299.00
AMSTRAD PC2286 HD/COL	£1199.00
USED AMIGA 1000 OUTFIT, 2Mb RAM	
SIDECAR IBM ADAPTOR, 35" & 525"	
DRIVES, SUPERB BUY	£750.00
X-COPY II + HARDWARE	£27.50
AMIGA FLIGHT YOKE FSII	£7.99
ATARI PORTFOLIO	£199.95
AMIGA A501 512K MEMORY	£79.95
CUMANA 35" 1Mb FOR ST	£79.95
380K 525" BARE DRIVE	£39.95
MINIGEN GENLOCK - AM	£89.00
EASY DRAW 2 - ST	£39.95
AMSTRAD MC2400 MODEM	£169.00
DIGIPAIN 3 - AMIGA	£42.50
DIGIVIEW FOUR - AMIGA	£109.00
CAN DO - AMIGA	£99.00
PARALLEL PRINTER CABLES 12M FOR	
PC/ST/AMIGA POSTFREE	£4.50
ATARI PORTFOLIO ACCESSORIES	
PARALLEL INTERFACE	£35.00
SERIAL INTERFACE	£52.00
32K CARDS	£49.95
128K CARDS	£115.00
SUPERBASE 2 - WINDOWS PC	£199.95
OMNIBRIDGE FLOPPY CARD	£72.50
KINDWORDS 2 - AMIGA	£29.95
1ST WORD PLUS - ST	£29.95
PRO DRAW - AMIGA	£79.95
FALCON MISSION DISC - AM	£9.95
MOUSE MATS - BLUE	£2.50
USED AMIGA A590 HDD	£279.00

THE AFFORDABLE SOLUTIONS

Amstrad PPC 640S
with Integral modem

+

20MB Internal
Hard Disk

Amstrad is the trademark of
Amstrad Plc.

HARD DISK
FEATURES

- Totally Internal
- Fast access time
- Lightweight
- Rugged
- Autopark
- Very quiet

ONLY
£948

(ex. VAT)
Price includes delivery
UK Mainland

Internal hard disk Upgrade for PPC 512/640. 20MB
£449.00 - Excluding VAT 40MB £599.00 - Excluding VAT.

NEW

EXPANSION BOX FOR PPC (SLOT BOX)
FEATURES:

- *FOUR FULL SIZE SLOTS
- *ADDITIONAL SPACE FOR:
- 2 X 5 1/4" devices
- 2 X 3 1/2" devices

ONLY
£199

Exc. VAT

A stand alone unit incorporating a
unique temperature-controlled cooling
fan. Unit also powers PPC. Output : 75W



ALFA

ELECTRONICS LTD
Alfa House
28 The Bittoms
Kingston Upon Thames
Surrey KT1 2AP

For Further Information
RING: 01-547-3701
Fax: 01-547-3702

OR
Contact your
local Amstrad
Business Dealer

DISK MAKE	10	50	100
DYSAN HighDensity	18.99	90.00	175.00
" 96tpi	11.75	00.00	000.00
3M HighDensity	18.99	90.00	175.00
" 48tpi	8.50	42.00	80.00
" 96tpi	9.99	49.00	95.00
KODAK HighDensity	10.50	51.00	100.00
" 48tpi	9.50	47.00	90.00
" 96tpi	6.50	31.00	60.00
MAXELL 48tpi	8.50	42.00	80.00
" 96tpi	9.99	49.00	95.00
VERBATIM 48tpi	6.00	28.00	55.00

BULK - 96tpi 8.75 x 25 16.00 x 50 30.00 x 100
All branded disks are boxed in tens and guaranteed for life! All bulk disks are of the highest quality, complete with labels & write protects and guaranteed error free
BEWARE CHEAP DISKS!

3M HighDensity	18.00	88.00	174.00
SONY HighDensity	19.30	94.00	185.00
" MFD 2DD	12.99	62.99	122.50
KODAK MF2 DD	10.50	51.00	100.00
BANANA D/S	13.50	60.00	110.00
COMMODORE D/S	14.00	65.00	120.00
TDK D/S	15.00	70.00	130.00

BULK KAO/SONY 7.90 x 10 37.50 x 50 70.00 x 100

PRINTER	1	5	10
LC10 - Black	3.99	19.00	38.00
LC10 - Colour - br	9.99	48.00	95.00
LC24-10 Black	4.50	21.50	40.00
NL10 - Black	4.99	24.00	46.50

EPSON			
FX800/MX80	3.93	19.00	38.00
LQ800	4.50	21.00	40.00
LX80/GX80	3.99	19.00	37.00
EX800	5.99	29.00	57.50
AMSTRAD			
PCW8258	3.45	16.75	33.00
DMP 4000	4.25	20.00	39.00
DMP 2000/3000	3.99	19.00	37.00
COMMODORE			
MPS 801	4.75	23.00	45.00
CITIZEN 120D	4.99	24.00	47.00
MT 80/81 - br	3.50	16.00	31.00
ATARI SM804	3.50	16.00	31.00
NEC P1, P2, P6	5.75	28.00	55.00
P2200	3.80	18.00	35.00
P2000	6.80	33.00	65.00
P6 +	8.99	44.00	87.00
PANASONIC			
KX-P115 - br	8.50	42.00	82.00
KX-P145 - br	8.25	40.00	78.00
KX-P1090	3.49	16.00	31.00
KX-P1081	3.49	16.00	31.00
OLIVETTI DM105	3.99	19.00	37.00
DM105 Colour	13.50	65.00	127.50
OKIMATE 20 - br	6.59	31.00	60.00

We stock THOUSANDS of ribbons - ■ yours isn't listed please call for a quote

RIBBON RE-FRESH 8.50 - ribbon re-ink spray

CENTRONICS - 1.7m	- £4.49
SERIAL - 1.7m	- £9.99
AMIGA/SCART	- £11.99
ST/SCART	- £10.50
ST DIN to bare end - 2m	- £6.50
MIDI LEADS - 2m	- £2.95 5m - £3.45
4 player ADAPTOR - (ST)	£4.90
(Amiga)	£3.90
Joystick/Mouse extender	- £3.45
Joystick extender - 2m	- £3.45
MOUSE MATS - red/blue/grey	- £3.50
COPY HOLDERS - (A4)	- £8.99
(clip-on)	- £6.99
MAGIC STAGE	- £10.85
MOUSE POCKET	- £2.50
DRIVE CLEANER (5.25" or 3.5")	£3.50

LABELS - (Lined 5.25" or 3.5") £1 a 30
LABELS - (tractor feed) £2.50 a 100
(white/blue/green or yellow)

Plus Hardware, Paper, Address Labels, Printer/Monitor Stands

ALL BOXES AVAILABLE

FOR 5.25" or 3.5" (state which)
VISION ■ (holds 10-blue/red/black) £1.75
SLIMPAK (holds 10-black/white) - £1.75
REXEL FLIPBOX (hold 20 or 15) - £4.99
MEDIA DRAWER (stackable) - £19.99
(5.25" holds 70, 3.5" holds 150)

Boxes below are Lockable, anti-Static - smoked lids - 2keys

To hold - 100 - £10.00 80 - £9.00
To hold - 50 - £8.00 40 - £7.00

NEW!! POLLYLABELS

Fed-up trying to rip off those disk labels? Each carton of 'pollylabels' contains 50 remarkable ERASEABLE labels, marker pen, eraser pen, cotton wipes, solvent, colour coding labels etc.

ONLY £11.95

	ST	Amiga
X-OUT	15.95	15.95
XENOMORPH	19.99	19.99
PIPEMANIA	15.99	19.99
PLAYER MANAGER	15.95	15.95
KICK-OFF	14.95	15.95
MANCHESTER UNITED	19.50	19.95
FOOTBALL MANAGER2+ EXP'	12.95	16.99
KO XTRA TIME	8.95	8.95
WILD STREETS	19.99	15.99
BLACK TIGER	15.95	19.50
RAINBOW ISLAND	19.99	19.99
MIDWINTER	25.95	no
HOUD OF SHADOW	19.95	19.95
SPACE HARRIER 2	14.99	15.95
STRYX	15.95	19.95
PINBALL MAGIC	15.99	19.95
CONQUERER	19.95*	19.99
DRAGONS BREATH	no	19.95
SINGE'S CASTLE	no	35.95
OVERLANDER	no	15.99
STUNT CAR RACER	no	15.99
INFESTATION	19.95	20.99
SPACE ROGUE	no	24.95
TYPHOON THOMPSON	15.99	19.99
F29 RETALIATOR	19.99	19.99
MANIC MINER	no	9.99
SONIC BOOM	19.99	19.99
KID GLOVES	19.95	19.95
IVANHOE	15.99	19.99
LOST PATROL	15.99	19.99

MOUSE TRAP
ARTIFICIAL DREAMS
FROST BYTE
WAR MACHINE
ROADWARS
TNT COMBAT MISSION
GLADIATOR
EXTANSOR
MOTORBIKE MADNESS
WARLOCKS QUEST
HUNTER KILLER
SIDEWINDER 2
OUTLAW
POOL
JOEBLADE
JOEBLADE 2
EAGLES NEST
SPEEDBOAT ASSASIN
ADV' SKI SIMULATOR
ADV RUGBY SIMULATOR
SAS COMBAT SIMULATOR
BMX SIMULATOR
NITRO-BOOST CHALLENGE
ITALIA 1990
LEAGUE CHALLENGE
ROCK STAR Ate My HAMSTER

If you don't see the title you require, just ring and ask, we can get ANY you need, usually the next day. PLUS, we run Britians No.1 PD & SHAREWARE library for a whole range of machines, send S.A.E for a FREE catalogue (state your machine clearly)

SOFTVILLE COMPUTER SUPPLIES

Unit 5, Stratfield Park, Eletttra Avenue
Waterlooville, Hants. PO7 7XN



VISA

How to order

Phone 0705 266509 Fax 0705 251884

or send Cheque/Postal orders.

All prices are inclusive of VAT, please ADD £1:00 per ORDER for post and Packing

SOFTWARE

all these games only
£4.99 EACH
(ST or Amiga)

BBCB plus software £100 o.n.o. Tel: 01-654 8852.

MSX games for sale, all originals with instructions. Titles include Grogs Revenge, Joe Blade, Indiana Jones and Robocop. Prices to be arranged. Tel: Peterborough 268244.

AMSTRAD CPC464 green screen, modulator for T.V. use, £400 of software and joystick, worth £700 will accept £350. Tel: 0772 798576 after 5pm.

ATARI 1027 printer with Atariwriter books £45. Atari 130XE computer books etc. Minor Problem £20. Some software. Ring 01-636 7218 Central London Monday/Thur after 7pm.

FOR Spectrum, Alphacom 32 printer with paper £30. Multiface 1, £20. RGB Interface, £20. Light Pen for Spectrum+2, £10. 20 games originals, £22. Tel: 0258 880394.

PIONEER PX7 computer. Paint Palette, full video superimpose facility, titling programs, Animation, books, games. Tel: 0323 844105. Hailsham, Sussex £180 o.n.o.

AMSTRAD 1640MD 10Mb HD, DMP3000 printer, software included, Ultimate, Gem, Spreadsheet, Database, Automenu, some games, boxed. Buyer collects. Call Lin, office hours 01-580 6582 £550 o.n.o.

BBC Master Compact, monochrome monitor, Mba-3, Dumpout-3, ROMS, Panasonic KX1081 printer, additional Cumana 80/40T 5.25-in disc drive, all boxed, manuals, £550. Tel: Rugby 0788 832310.

AMSTRAD 6128 colour monitor, Amstrad printer, matching covers, desk, joystick, Trackball mouse, Lightpen, manual, blank discs, some games, Artball graphics, worth £1000 take £600. 06973 31759.

128k QL 20+ carts in transform box £80. BBC disc drive, no power supply £30. Atari SM124 mono monitor £60. Tel: 0836 380187 Berks anytime.

SPECTRUM+ 128k inc: Tapedeck, joystick+, Interface, Multiface 128, printer, Lightpen, many games inc: Bubble Bobble, Flying Shark, Robocop, £180 o.n.o. Phone 0395 278091 after 7pm.

520STFM for sale. Had since November, boxed, mouse, leads, etc. Software inc. Strider, Ghouls and Ghosts, Blood Money, Lots more, all for £280. Tel: 01-740 4607.

C64, disk drive, tape deck, printer for £250. Extras available: games, cartridges, etc. Tel: 0203 327647. ■ boxed with manuals. Ghouls 'n Ghosts game - £5.

SEGA Master system. Extra control stick and ■ games, including Wonderboy III and World Soccer £120 o.n.o. Must sell complete. Tel: Andrew: 041-776 5214.

AMIGA A500 +A590, 3 Mb RAM, KS 1-3, mint condition, loads of software, no offers, time-wasters, dreamers or lammers. Ring me, buyer collects £500 Winsford 594717.

MIRAGE Imager, backing up device for Amstrad CPC's, full instructions, full working order £25.00 o.n.o. Tel: 0533 478880. Write: Tythe Farm Cottage, Peatling Magna, LE8 3UP.

AMSTRAD PCW8512 with serial/parallel interface, printer cable & unused printer, includes 50+ blank disks. Phone 0253 869278 after 6.00pm £350 buyer collects.

MINI-OFFICE II for Atari 8 bit machine £5. Also many other disk based games for the 800XL, very cheap, Ring: 01-789 2471 anytime.

STAR LC10 printer for sale. Excellent condition, hardly used, £120. Buyer collects. For details phone Mike on: 051-677 1581 or write: 18 Flaxhill, Moreton, Wirral, Merseyside.

COMMODORE Plus 4 PC integral WPI Spreadsheet, Database, 1551 diskdrive, MPS801 printer, 1531 datasette, Philips green monitor, joystick, disks, games, boxed manuals £250

no offers. 01-645 0933.

ATARI 520STFM with 1 mb drive, all leads included, Dust cover, 2 joysticks, mouse and over £600 games. Price to be negotiated. Ring 0225 335648 Simon.

PC engine, pad, joystick and 7 high quality games, Vigilante, Alien Crush, Space Harrier, Chan + Chan, Altered Beast, Wonderboy, worth £400 sell £220. Tel: 0709 544815.

ATARI ST hard drives: 91Mb new £500 o.n.o. 40Mb £360 o.n.o., plenty of software. Tel: 0622 725327.

C64 hardware and software. Send S.A.E. for list. Mr. A. H. Foster, 24 Pansy Road, Bassett, Soton, SO2 3GR.

FOR sale: Freeze Machine £12 or swap for other cartridge. Tel: Tyneside 2634866, evenings only.

SHARP MZ80A integral monitor/tape 80 column conversion v.g.c. boxed £75. Sharp printer MZ80P3 £50. Sharp MZ80k £50. Extensive software available. Tel: 0773 580571.

ATARI 520STFM 1 mb, Philips CM8833, Panasonic XP1081 printer, as new, still boxed, hardly used, £400. John 0705 520316.

MASTER 128, Teletext adaptor, colour monitor, twin drives, overlay board, £515, 512 board without mouse £65, ROM software available. Ken Rane 0452 506361 Glos.

ATARI 520STFM d. drive, boxed as new, £700's games, Basic, Demo, blank disks, 4 joysticks, 4 adaptor, mouse, 100 magazines, £370. Marcus 01-751 0523.

AMSTRAD PPC640DD portable computer, dual drives, IBM compatible, high speed, modem, as new cost £649, sell £450. Basil-don, Essex, 0268 417775.

CD player, Citizen portable, cost £169 sell

£90. Also Ultra-violet light box for making PCB's cost £175 sell £70. Basildon, Essex 0268 417775.

ATARI 520STFM single sided disk drive, 512k RAM, mouse, manuals, leads, boxed + STOS, Police Quest, Captain America, £150. Phone 021-354 8479. Buyer collects, 8'ham area.

EPSON HX-20 rechargeable lapton, integral printer, screen + datacorder, includes modem, expansion, leads and wordprocessor, Spreadsheet, Database. Value £1,100+ accept £180. Tel: 0332 761831 after 6pm.

CPC6128 colour, joysticks, 2 manuals, 2 system discs, £250+ software inc. WP, DTP, tape and printer leads, tape drive, £350 o.n.o. Tel: 01-202 7728 in Hendon, London.

ATARI st with 26 original games, three months old, £375.00 o.n.o. Tel: 021-559 4319.

SEGA console for sale, joystick, monitor, lead, 6 games, including Astro Warrior, Shinobi, Powerstrike, £100. Buyer collects. Tel: 0260 276574 after 7pm. Ask for Robert.

COMMODORE 64 games for sale including Batman-Movie, Op. Wolf, Kick Off, Chase HQ and Microprose S. £1-7 each. Phone 01-305 0998 evenings Monday-Friday. ■ boxed and originals. M. Mahoney.

WORDPERFECT for Amiga as new. Unregistered. Best wordprocessing package available. RRP £200, for sale at only £90. 0784 453807.

ST software - £5 - Gauntlet II, Qids, ST 5 Star. £4 Zynaps, Bionic Commandos and others - phone! Also ZX printer paper, 17 rolls offers? Peter on 031-444 2361 after 6pm.

FOR sale: Extra Time for Kick Off. Amiga version £5. Tel: 0260 276574 after 7pm, ask for Robert.

DIGITISING tablet CRP A4 hardly used, £350 o.n.o. ■ 01-998 0153.

WIN

£££'s OF PRIZES EVERY WEEK

ON THE

COMPUTER Quiz Line

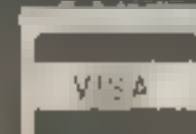
Just answer 3 true/false questions
and you could win a selection of the
latest software for your computer

SO, RING THIS NUMBER NOW 0898 88 69 68

CALLS CHARGED AT 25p MIN
"CHEAP" RATE AND 38p AT ALL
OTHER TIMES

DIGITAL DISKS

Top quality bulk discs by
KAO, Sony, TDK or Mitsubishi



No quibble replacement or full refund

Prices inc VAT and P&P



3 1/2" DS/DD 135 TPI 1Mb

10	20	50
£6.99	£13.59	£32.50

3 1/2" DS/HD 135 TPI 2Mb

10	20	50
£13.99	£25.99	£59.50

5 1/4" 96 TPI

10	20	50
£4.59	£8.99	£19.99

5 1/4" DS/HD 96 TPI

10	20	50
£9.99	£18.99	£45.99

Cheques/PO payable to
Digital Disks

All disks are certified.
All 3 1/2 come with labels.
All 5 1/4 come with envelopes.

Digital Disks
60 Burnside Drive,
Bramcote Hills,
Beeston,
Nottingham NG9 3EE
Telephone/Fax
0602 256197
10am-5pm

PLACE AN AD

FREE!

Selling an old computer?

Need some help?

Got any tips?

Run a bulletin board?

In charge of a consumer group?

After a second-hand bargain?

● You've come to the right place. Just fill in the form to place a free classified advertisement in Shopping Express

● Send your reader ad to:
Reader Ads Department
New Computer Express
30 Monmouth Street,
Bath BA1 2AP

READER ADS ORDER FORM

PLEASE TICK THE CATEGORY YOU WANT YOUR AD TO GO IN:

- | | | | |
|--|---------------------------------------|--------------------------------------|--|
| <input type="checkbox"/> HELP OFFERED | <input type="checkbox"/> GOODS WANTED | <input type="checkbox"/> USER GROUPS | <input type="checkbox"/> BULLETIN BOARDS |
| <input type="checkbox"/> BUGS DISCOVERED | <input type="checkbox"/> EVENTS | <input type="checkbox"/> SERVICES | <input type="checkbox"/> VIRUS WARNIG |
| <input type="checkbox"/> ANNOUNCEMENTS | <input type="checkbox"/> MINI-TIPS | <input type="checkbox"/> FOR SALE | <input type="checkbox"/> PERSONAL |

NAME _____

ADDRESS _____

TEL: _____

Terms and conditions

■ Sorry, NO trade ads. All reader ads must be from private individuals

■ We cannot vouch for the quality of goods and/or services offered in this section. all ads are accepted in good faith.

■ We reserve the right to amend or refuse reader ads ■ our discretion

■ No pirated software may be sold through these columns. Any reader being offered non-originals should contact us

■ We cannot guarantee that reader ads will appear in particular issues of Express

■ The following declaration should be signed:

My advertisement conforms to the terms above and is legal, decent, honest and truthful

Signed _____

We begin on a musical note this week, with a quite unbelievable music playing and composing program for the Apple Mac appropriately called *Concertware*. The program enables users to write and play musical compositions and to design and implement new musical instruments. Although the commercial *Concertware* offering is not in the public domain, there is an excellent evaluation copy which can be distributed freely.

The program comes in three modules - Player, Writer and Instrument Maker. Player, as its name suggests, takes pre-composed musical pieces and plays them back via the analogue to digital converter in the Mac. You choose a piece from the standard file selector, a window opens displaying a musical staff and the music begins.

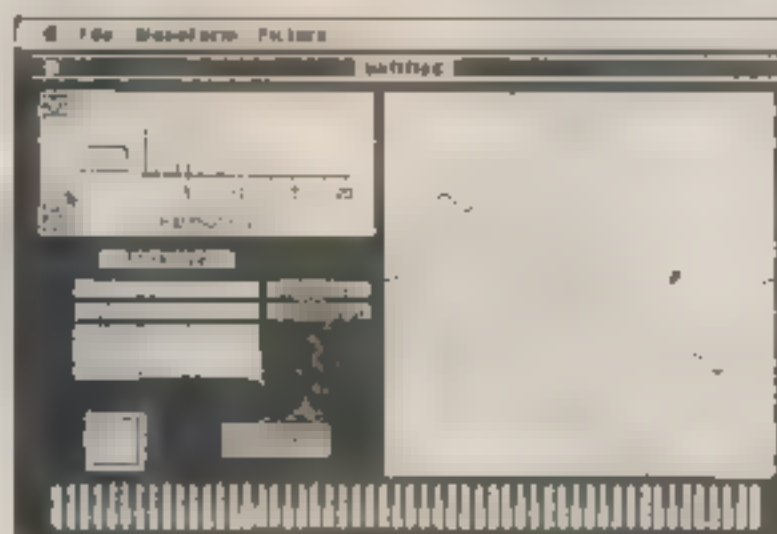
The window also contains information about the composer, the piece itself (the year of composition and so on) and depicts which instruments are being used to perform it. As each note is played, the staff moves from right to left, so you can chart the progress of the piece as it is played (helpful for those attempting to get to grips with the arcane world of musical notation). At any point in the proceedings you can stop the performance, increase or decrease the tempo, change the instruments (choosing from an impressive

THE PD COLUMN

There is a lot of software out there available for the price of a disk. Our weekly column by Jerry Glenwright explores the world of the public domain.

range), repeat any bar or the whole thing right from the start. The quality of sound is truly excellent and instruments really do sound just as they should - even the strings!

Writer enables budding composers to construct anything from simple tunes to complex orchestral works by pointing at a staff and clicking with the mouse. All musical notation is available and as each note, rest, bar sign and the like is added the staff scrolls from left to right making it easy to see where you are and simplifying composition. You can stop and play the piece at any time, or edit previously created masterpieces (throw a few sharps and flats into Rachmaninoff's Prelude in G minor just to see what happens). And when you're tired of writing music, you can design new and fantastic instruments using Instrument



You can edit the waveform of the sound you are working on.

Maker which offers envelope shaping and computing from unscaled - and scaled - harmonics. If harmonics and envelopes are a little beyond you, simply draw a waveform on screen with a 'pencil' controlled by the mouse and the program will interpret your drawing as the output from a musical instrument.

Accompanying the program modules are two folders containing a small

planet's worth of tunes and instruments covering all fields so there's plenty to keep you going. For anyone vaguely interested in dabbling with music, *Concertware* is a must.

COMMODORE AMIGA

One of the most powerful features of the Amiga is its ability to multi-task, but try getting the machine to perform this function and unless you're a computer whizz-kid, you'll be trying for a very long time. And what's the second biggest moan concerning the Amiga? Workbench, right? Machines such as the Atari ST have replacement 'front-ends', why not the Amiga? Jazzbench from Nova Software is just that, a powerful replacement for the Workbench which transforms your Amiga like no other system-level program.

BELL BOOKS

AMIGA	Advanced Amiga BASIC	18.95
	3D Graphics Prog BASIC	18.45
	Amiga Applications	16.95
	Assembly Language Prog	14.45
	Amiga BASIC Inside & Out	18.95
	More Tips & Tricks for Amiga	18.45
	Amiga C Advanced Programmers	32.45
	Amiga C For Beginners	18.45
	Amiga DOS	14.95
	Amiga DOS Inside & Out	18.45
	Amiga Prog Handbook - Vol 1	23.95
	Amiga Prog Handbook - Vol 2	23.95
	Amiga Disk Drives Inside & Out	27.95
	Inside Amiga Graphics	16.95
	Becoming an Amiga Artist	18.45
	Amiga Programmers Guide (Computed)	17.45
	Amiga Machine Language	14.95
	Beginners Guide to the Amiga	16.95
	Kickstart Guide to the Amiga	13.95
	Amiga Hardware Reference Manual	21.95
	ROM Kernel Ref Man, Libs & Devices	32.95
	Kids & the Amiga	15.95
ATARI	Atari Assembly Lang Prog Guide	19.95
	Atari ST BASIC Training Guide	14.95
	Atari ST Intro to MIDI Programming	16.95
	Atari ST 3D Graphic Prog	18.95
	Atari ST for Beginners	14.95
	Learning C on the Atari ST	18.45
	1001 Things to do with Atari ST	12.60
	Atari ST Tricks & Tips	16.95
	Kids and the Atari ST	16.95
	A Small C Compiler	21.95
GENERAL	Fractal Programming in C	22.95
	Introduction to Pascal, 2nd Ed	21.95
	Pascal Programming	10.95
	Introduction to Wordstar	17.95
	Mastering Wordperfect	19.95
	Complete Desk Top Publishing	21.95
	Introduction to Desk Top Publishing	12.50

Prices include postage. Orders with cheque to:-
BELL BOOKS, TUSHINGHAM, WHITCHURCH, SHROPSHIRE SY13 4QT

★ ★ ★ READ ALL ABOUT IT! ★ ★ ★

COME AND
SEE US

THE COMPUTER STORE

POST
FREE

Amiga A500 Package

Containing
The Flight Of Fancy Pack,
Rainbow Islands,
F29-Retaliator,
Escape From The Planet Of
The Robot Monsters,
Deluxe Paint II

PLUS

The Computer Store Pack
Consisting Of Quality Mouse
Pad,
Mouse Bracket,
10 Best Quality Blank Disks,
Disk Box to hold 40 Disks.

PLUS

The Addons Pack
Consisting of Exolon, Zynaps,
Slayer, Battle Tank,
Xybemoid II, Megablast
Joystick.

FREE COURIER DELIVERY

This Package is available
ONLY from

THE COMPUTER STORE

ONLY £399

DISKS LOW LOW PRICES and HIGH HIGH QUALITY

3 1/2" ONLY 59p EACH 3 1/2" DSDD

Our disks are packed in boxes of 10 and come complete with labels. They are of the highest quality and come with a no quibble replacement guarantee. Order any quantity of disks you want at only 59p each post free.

25 Disks + 80 Capacity Lockable Box	£19.95
40 Capacity Lockable Disk Box	£5.99
80 Capacity Lockable Disk Box	£6.99
100 Capacity Lockable Disk Box	£7.99

Call in and visit The Computer Store, produce this advert and we will give you a FREE 3.5" disk. We are in the In Shops Complex in Chelmsley Wood Shopping Centre

THE COMPUTER STORE

Unit 82 In Shops
2-8 Greenwood Way
Chelmsley Wood,
Birmingham B37 5TL
Tel: 021 770 0468

Near Junction 4 M6. Park across the road in the open air car park in Chelmsley Circle. Parking is free.

THE PRICE
YOU SEE
IS THE PRICE
YOU PAY
NO EXTRAS

Courier Delivery
£5.00
C.O.D. by Courier
only £10.00

True multi-tasking means that whatever the Amiga is doing, you can access other file and disk functions without getting busy icons. Have you ever had several windows open at once and had to jiggle between them, resizing and replacing in order to gain access to your files? Jazzbench windows provide a new icon which instantly resizes the window to fit into the available space on the screen, and click the icon again and the window returns to its previous size. But perhaps the most powerful of all the Jazzbench functions is its ability to provide you with desk accessories just like those of the Atari ST and Apple Mac. Now you can use a calculator for instance, while working with a word processor or database.

AMSTRAD CPC.

Back in the days when most home computers had keyboards with about as much life as one of Freddy Krueger's throwaways, the Amstrad CPC came with a keyboard that simply couldn't be matched for quality. Coupled with a crisp, medium-resolution monitor and you had the makings of a very good, reasonably priced word processing system. Unfortunately, with one or two exceptions, the market remained bare of usable word processors, and those available cost the Earth!

Proscript from DW Software is a word processor cum desktop publisher that easily rivals commercial offerings (if

you can find any), yet is completely free. Document processors enable you to produce fancy letterheads, menus, party invitations, business cards and the like without investing a lot of time and effort into learning the principles of DTP, and *Proscript* is no exception. Everything from cut and paste to delicate kerning and leading operations can be performed from within its user-friendly environment. The program is entirely menu

driven so help is always at hand. To create text effects such as underlining, displaying headline fonts and so on, you preface the text to be changed with a control command. When the document is printed – hey presto! – instant headlines.

For all those whose ambition is to create a quality broadsheet rival to *The Guardian* and *The Independent*, *Proscript* provides multi-column text editing

and printing so newspaper effects are easy to achieve. The program supports Epson and compatible printers or you can enter the necessary control characters for your own printer. Justification, kerning, leading, proportionally spaced text and 17 fonts are just some of the features. It comes with full printed documentation to save you from wading through reams of doc files on disk. An excellent program. ■

WHERE TO GO...

Many PD libraries advertise in Shopping Express, but these are also worth a look.

ATARI ST

- Goodman Enterprises, 16 Conrad Close, Meir Hay Estate, Longton, Stoke-on-Trent ST3 1SW. The Goodman library is one of the best, with all the latest PD always in stock – and Mike Goodman is a friendly guy, always willing to chat!
- Page 6, PO Box 54, Stafford ST16 1DR. Page was one of the first PD libraries and ranks with the best. The company also stocks a wide range of Atari 8-bit PD (reviewed in the coming weeks) and publishes *New Atari User* magazine.

CP/M

- The CP/M User Group, 72 Mill Road, Hawley, Kent DA2 7RZ. Help, advice and more PD than you can shake a stick at.

COMMODORE AMIGA

- George Thompson Associates, Dippen, Brodick, Aran, Scotland KA27 8RN. GTA stock a variety of products for Commodore's baby and have an excellent PD library.
- Softville PD Service, Unit 5, Stratfield Park, Elettia Avenue,

Waterlooville, Hampshire PO7 7XN. A comprehensive library which also stocks ST and PC PD too.

AMSTRAD CPC

- Wacci UK, 9 South Close, Twickenham TW2 5JE. Bung a couple quid in the post for a latest copy of the Wacci fanzine (a very good read...) plus comprehensive lists of PD.
- DW Software, 62 Lascelles Avenue, Withernsea, North Humberside HU19 2EB. The source of *Desk* and many other remarkable PD programs all written by DW himself!

PC AND COMPATIBLES

- Public Domain Software Library, Winscombe House, Beacon Road, Crowborough, Sussex TN6 1UL. The first in the UK.
- Seltec Computer Products LTD, Northumberland House, Staines Business Centre, Gresham Road, Staines, Middlesex TW18 2AP. Seltec stock a large range of quality shareware.

APPLE MAC

- The Macintosh User Group UK, 55 Linkside Avenue, Oxford OX2 8JE. A users group? Yes! PD library? Yes! Excellent club magazine? Yes! What are you waiting for?

FIRST CHOICE COMPUTERS

TEL: LEEDS (0532) 637988

UNIT 8, ARMLEY PARK COURT, STANNINGLEY ROAD, LEEDS LS12 2AE

ALL PRICES INCLUDE VAT & DELIVERY. ALL OUR PRODUCTS ARE UK SPECIFICATION.

COMMODORE 1084S
Stereo monitor, inc lead.
£239.00



AMIGA FLIGHT FANTASY PACK
Inc F-16 Retaliator!! Rainbow Islands, Escape from the Planet of the Robot Monster, Deluxe Paint 2, Mouse Modulator. Add £20.00 for Batman + F-16 Interceptor. Add £20.00 for 10 Star Pack.
£369.00



ATARI 520 STE POWERPACK
Inc 20 games, Joystick, First Basic, Music Maker and organiser software plus Hyper Pack.
£359.00

PHILIPS CM8833
Stereo Monitor Inc Lead
£249.00

PRINTERS (inc lead)

Star LC10 Colour.....£209.00
Star LC10 Mono 9 Pin.....£159.00
Star LC2410 Mono.....£249.00
Citizen Swift 24 pin.....£309.99
Swift Colour Option.....£34.99
NEC P2 + 24 Pin.....£299.00



ATARI STFM DISCOVERY PACK
Inc Mouse, manuals, Bomb Jack, Carrier Command, Space Harrier, Outrun, STOS Neochrome, First Basic, ST Tour.
£279.00

COMPUTERS

CLASS OF THE 90's
Kindwords Word Processor, Spreadsheet, Database, Music/Midi software, Graphics Software, Desktop Publisher, Mouse, Modulator, Disk and Mouse Mats.
£519.00

ATARI 1040 STE HYPER PACK
£449.00

ATARI 1040 STE PROFESSIONAL PACK
With Word-up, K Spread 3, Metacomco Basic & Superbase Personal.
£479.00

RAM EXPANSION

1 Meg RAM Expansion for Amiga A500 only £69.00. Inc Clock/Calendar, Photon Paint II only £15.00 when you buy 1 Meg RAM Expansion.

ACCESSORIES

Trackball Mouse.....£39.99
Scan Leads.....£9.99
Printer Leads.....£5.99
100 Capacity lockable 3.5 disk boxes.....£7.99
80 Capacity lockable 3.5 disk boxes.....£6.99
40 Capacity lockable 3.5 disk boxes.....£5.99
Amiga dust covers.....£4.99
Star LC10 cover.....£4.99
14 inch monitor cover.....£6.99
12 inch monitor cover.....£5.99
Universal printer stand.....£9.99
Mouse pads.....£4.99

DISK AND HARD DRIVES

Cumana Amiga 1 Meg.....£94.99
Cumana ST 1 Meg.....£89.99
Power Drive Amiga 1 Meg.....£76.99
Power Drive ST 1 Meg.....£84.99
Amdrive 30 Meg Hard Drive for Amiga.....£399.00
Amdrive 50 Meg Hard Drive for Amiga.....£469.00
Commodore A590 20 Meg for Amiga inc. 2 Meg unpopulated board.....£386.00
Supra 32 Meg Hard Drive for ST.....£449.99
Supra 48 Meg Hard Drive for ST.....£539.99
Megafile 30 Meg Hard Drive for ST.....£459.99
Megafile 60 Meg Hard Drive for ST.....£619.99

3.5 INCH DISKS

100% ERROR FREE
LIFETIME GUARANTEE
135 TPI 3.5 INCH

SONY BULK

10	For	£6.99
50	For	£31.99
100	For	£59.99
200	For	£150.99
300	For	£158.99
500	For	£254.99
1000	For	£499.99

MITSUBISHI BULK

10	For	£5.99
50	For	£27.99
100	For	£49.99
200	For	£97.99
300	For	£142.99
500	For	£229.99
1000	For	£449.99

DISK LABELS

500	For	£7.99
1000	For	£13.99

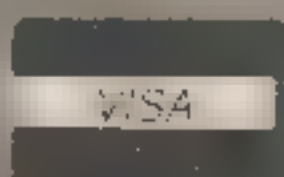
For the Best Prices, Best Advice and Best Service, your only choice is FIRST CHOICE.

OPEN 9.00AM TO 5.30PM MONDAY TO

SATURDAY OPEN SUNDAYS 10.00AM TO 3.00PM

OPEN THURSDAY TILL 8PM

Call into our showroom or order by telephone for a fast delivery Tel: 0532 637988 Fax: 0532 637 689 please make cheques payable to First Choice



MEMORY UPGRADES

ONE STOP SOURCE FOR ALL PC MEMORY UPGRADES

Datrontech. Europe's only dedicated manufacturer and stockist for plug compatible memory. All products carry a five year warranty and are available ex-stock. Call for volume and dealer pricing.

1 SIMMS & SIPS

Memory module and chip level upgrades to suit all PC models. Call our unique advisory service for upgrade assistance.

AMSTRAD, AST, DELL, EPSON, EVEREX, HP, INTEL, IBM XT/ATs and CLONES, MITEC, NOVELL, OPUS, SUN, SILICON, GRAPHIC PLUS

256K x 8 - 100	(£)	19
256K x 8 - 80		22
256K x 9 - 100		23
256K x 9 - 80		26
256K x 9 - 60		32
1M x 8 - 100		60
1M x 8 - 80		63
1M x 8 - 70		69
1M x 9 - 100		65
1M x 9 - 80		68
1M x 9 - 70		75
4M x 8 - 80		490
4M x 9 - 80		550

CALL FOR SIP PRICING

Memory board upgrades available for: ORCHID, EVEREX, TECMAR, INTEL, AST ... Call sales office for details.

2 CHIP UPGRADES

DRAM, SRAM, EPROM & CACHE memory available from stock. Call for quantity pricing and speed selections.

64K x 1 - 120	(£)	1.05	256K x 1 - 100	(£)	1.75
64K x 1 - 100		1.15	256K x 1 - 80		2.15
64K x 4 - 100		1.85	1M x 1 - 100		6.25
64K x 4 - 80		2.15	1M x 1 - 80		6.65
256K x 1 - 120		1.55	1M x 1 - 70		6.95
			256K x 4 - 100		6.45

*Scheduled orders are priced protected.

*Packaged styles include DIL and surface mount

3 CO-PROCESSORS

D8087	5MHz	65
D8087-1	10MHz	125
D8087-2	8MHz	95
D80287-6	6MHz	98
D80287-8	8MHz	150
D80287-10	10MHz	175
A80387DX-16	16MHz	260
A80387DX-20	20MHz	295
A80387DX-25	25MHz	370
A80387DX-33	33MHz	455
N80387SX-16	16MHz	235

*Excellent trade and volume discounts available

*CMOS options also available

*Weitek Co-Processors call sales office

4 COMPAQ MEMORY

	COMPAQ P/No.	PRICE (£)
DESKPRO 386/33		
2MB Module	115144	345
DESKPRO 386/25		
1MB Module	113131	165
4MB Module	113132	490
DESKPRO 386/20		
1MB Module	113131	165
4MB Module	113132	490

DESKPRO 386/20e

1MB Module	113131	165
4MB Module	113132	490
1MB Exp/Bd	113633	170
4MB Exp/Bd	113634	550

DESKPRO 386/5

1MB Module	113646	185
4MB Module	112534	490
1MB Exp/Bd	113633	170
4MB Exp/Bd	113634	550

DESKPRO 386/16

1MB Kit	108071	255
4MB Kit	108072	680
1MB Exp/Bd	108069	280
2MB Exp/Bd	108060+	
	108071	Call
4MB Exp/Bd	108070	995
8MB Exp/Bd	108070+	
	108072	Call

PORTABLE II

1MB Kit	113012	94
---------	--------	----

PORTABLE III

512KB Kit	107331	71
2MB Kit	107332	182

PORTABLE 386

1MB Kit	107651	288
4MB Kit	107653	930
4MB Extra/Bd	107654	930

COMPAQ SLT/286

1MB Bd	110235	278
--------	--------	-----

COMPAQ LTE/286

1MB Bd	117081-001	295
2MB Bd	117081-002	595

*Call for details on our dealer support programme.

5 IBM MEMORY

XT/AT UPGRADES

128K board for XT/AT	(£)	78
Extended/Expansion boards		
Orchid Boards with memory		
512K for XT/AT		265
1MB		299
2MB		345
4MB		495
8MB		790

Other configurations available. Orchid boards take standard SIMM modules. User upgradeable.

PS/2 UPGRADES

Models 30/286, 50, 50Z, 55, 60, 70 & 80

PLANAR (MOTHERBOARD) MODULES:

	IBM P/No	(£)
PS/2 25	78XB955	34

PS/2 30/286

512K Kit	30F5348	86
2MB Kit	30F5360	229

PS/2 50/60

As above fitted with IBM adaptor board	1497259	Call
--	---------	------

PS/2 50Z

2MB Module	6450604	274
512K Kit	30F5348	86
2MB Kit	30F5360	229

PS/2 55SX

2MB Module	6450604	274
------------	---------	-----

PS/2 70 PORTABLE

2MB Module	6450604	274
------------	---------	-----

PS/2 70 E61 & 121

1MB Module	6450603	152
2MB Module	6450604	274

PS/2 70 A21

2MB Module	6450808	286
------------	---------	-----

PS/2 80/041

1MB Bd	6450808	193
--------	---------	-----

PS/2 80-111 & 311

2MB Bd	6450379	322
--------	---------	-----

New 4MB Kit 34F2933 Available now
WAIT NO LONGER
for your IBM memory - all above are EX STOCK

IBM ADAPTOR BOARDS

2-8MB Expanded memory board using IBM 2MB SIMM modules (6450604) user upgradeable.

PS/2 50, 50Z, 56Z, 55SX & 60

2-8MB Exp Bd	1497259	449
--------------	---------	-----

PS/2 70 & 80

2-8MB Exp Bd	6450605	449
--------------	---------	-----

EMS/LIMM 4.0 BOARDS

Extended/expanded memory boards S/W configurable. Using std SIMM modules. User upgradeable.

512KB 16/32	(£)	295
1MB		315
2MB		360
4MB		515
8MB		820

Call for other configurations

6 TOSHIBA MEMORY

PORTABLE T1600

2MB card	PC8-PA8302U	344
----------	-------------	-----

PORTABLE T3100e

512K card	PC9-PA8340U	148
2MB card	PC9-PA8341U	344

PORTABLE T3200

3MB card	PC6-PA7137U	485
----------	-------------	-----

PORTABLE T5100

2MB card	PC7-PA8301U	344
----------	-------------	-----

PORTABLE T5200

2MB Module	PC10-PA8304U	344
------------	--------------	-----

PORTABLE T3200 SX

2MB card	PC12-PA8307U	344
----------	--------------	-----

DESKTOP T8500 SX

2MB card	PC10-PA8304U	344
----------	--------------	-----

7 APPLE MEMORY

MacINTOSH II, IIcx, IIx

1MB Kit	(£)	98
2MB Kit		125

MacINTOSH IIfx

4MB Kit		240
---------	--	-----

Laserwriter II/NXT

1MB Exp/Kit	145
4MB EXP/Kit	449

8 DEC MEMORY

8MB VAX STN 3100	(£)	1,727
12MB		1,993
16MB		2,792

Call for trade pricing

9 SAMSUNG GRAPHICS MEMORY

8MB Model 4D/120, 220, 240, 280	(£)	1,685
4MB Model 4D/40, 50, 70 & 80		459
4MB Model 4D/20		459
16MB Model 4D/40, 50, 70, & 80		859

10 HP LASERJET UPGRADES

MEMORY

Laserjet II & II D

1MB	£146	4MB	£399
2MB	£265		

Laserjet IIP

1MB	£179	3MB	£355
2MB	£285	4MB	£435

FONT CARTRIDGES

100% HP compatible font cartridges

STANDARD CARTRIDGES:

85/A, C, D, E, G, H	(£)	49
86/B, F, J to Q, S to Y		69
86/R & Z		79

New 65-In-one CARTRIDGE 135

65 popular fonts on cartridge

*UK version includes £, Line Draw & OCR-A

*Equly/Enhanced to HP Pro Collection

11 ATARI STE

512K to 1MB	(£)	58
2MB		140
4MB		265

Datrontech also offer upgrades on popular Commodore, Amiga and Amstrad PCs. Call for details.

12 FIND OUT MORE

Please send me more details on the following:

1	2	3	4	5	6	7	8	9	10	11
---	---	---	---	---	---	---	---	---	----	----

Please tick

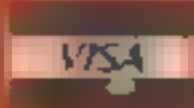
Name

Company

Address

Tel. No.

CALL 0252 313155



UNMATCHED

Lowest Price Guaranteed For Memory Upgrades other than shown call sales office

Prices exclude VAT & carriage

520ST-FM SUPER PACK



1Mb DISK DRIVE
£450 OF SOFTWARE
ARCADE GAMES

Arkanoid II	Imagine	£19.95
Beyond The Ice Palace	Elite	£19.95
Black Lamp	Firebird	£19.95
Buggy Boy	Elite	£19.95
Chopper X	Mastertronic	£9.99
Ikari Warriors	Elite	£14.95
Marble Madness	Electronic Arts	£24.95
Quadrailen	Logotron	£19.95
Ranarama	Hewson Consultants	£19.95
Return To Genesis	Firebird	£19.95
Roadwars	Melbourne House	£19.95
Starquake	Mandarin	£19.95
Test Drive	Electronic Arts	£24.95
Thrill	Firebird	£9.95
Thundercats	Elite	£19.95
Wizball	Ocean	£19.95
Xenon	Melbourne House	£19.95
Zynaps	Hewson Consultants	£19.95

SPORTS SIMULATIONS

Eddie Edwards Super Ski	Elite	£19.95
Seconds Out	Tynesoft	£19.95
Summer Olympiad '88	Tynesoft	£19.95

PRODUCTIVITY SOFTWARE

Organiser	Triangle Publishing	£49.95
-----------	---------------------	--------

JOYSTICK

Atari CX40 Joystick	Atari Corp	£4.99
---------------------	------------	-------

FREE ATARI BUNDLE VALUE: £458.97

£399

With SM124 mono monitor: £498 INC VAT

With SC1224 colour monitor: £698 INC VAT

1040ST-FM PROFESSIONAL PACK

NOW WITH TV MODULATOR

For the serious home user and the small business, we are pleased to announce a new package based around the 1040ST-FM. The 1040ST-FM has 1Mbyte RAM and a 1Mbyte built-in disk drive. In addition, the 1040ST-FM now comes with a TV modulator built-in. (The previously available 1040ST-F was designed for use with a monitor only and did not come with a modulator.) This modulator allows the 1040ST-F to be plugged directly into any domestic TV set, and comes complete with a lead to allow you to do so. The new 'Professional Pack' from Silica includes the new 1040ST-FM with modulator plus four high quality software packages including a spreadsheet, database, word processor and programming language. This 'Professional Pack' software will enable you to get straight down to business with your new computer in addition to this software (worth £384.84), if you buy the Professional Pack from Silica Shop, you will also receive the Silica ST Starter Kit (worth over £200). Free Of Charge. Return the coupon for further information.



£499

With SM124 mono monitor: £598 INC VAT

With SC1224 colour monitor: £798 INC VAT

ATARI 1040ST-FM	(Computer)	£499.99
VIP PROFESSIONAL	(Spreadsheet)	£149.95
MICROSOFT WRITE	(Word Processor)	£149.95
SUPERBASE PERSONAL	(Database)	£59.95
BASIC DISK & MANUAL	(Language)	£24.98

NORMAL RRP: £884.82

LESS DISCOUNT: -£385.82

PROFESSIONAL PACK PRICE: £499.00

2Mb & 4Mb MEGA ST

The MEGA ST computers are styled as a lightweight keyboard with a separate CPU, connected by a coiled telephone style cable. There are two versions of the MEGA ST, one with 2Mbytes of RAM and the other with 4Mbytes. Each version has a 1Mbyte double sided disk drive built-in to the CPU unit. The MEGA ST's do not come with modulator built-in and must therefore be used with a monitor. With every MEGA ST purchased, we will add the 'Professional Pack' software (worth £384.83) detailed above, plus the Silica ST Starter Kit (worth over £200) both Free Of Charge. Return the coupon for further details.

2Mb MEGA ST
£899 INC VAT

+ mono monitor = £998
+ colour monitor = £1198

4Mb MEGA ST
£1199 INC VAT

+ mono monitor = £1298
+ colour monitor = £1498



DTP PageStream £149 +VAT = £171.35

Desktop Publishing (DTP) is one of the fastest growing applications for personal computers. We are pleased to announce a powerful low cost package for the Atari ST called PageStream. PageStream costs only £149 (+VAT £171.35) and, because it works with an Atari 1040ST and a Silica SP-180AI printer, you can be up and running with a complete system for less than £1000. Some of the features of PageStream are listed to the right. If you would like further information on this program, complete and return the coupon below, ticking the DTP box in the corner.

- TEXT-FLOW AROUND GRAPHICS
- ROTATION OF TEXT & GRAPHICS
- SLANT OR TWIST ANY OBJECT
- POSTSCRIPT COMPATIBLE
- TAG FUNCTION
- AUTO/MANUAL KERNING & HYPHENATION
- GROUPING OF OBJECTS

DO YOU OWN AN ATARI ST?

If you already own an Atari ST computer and would like to be registered on our mailing list as an ST user, let us know. We will be pleased to send you copies of our price lists and newsletters FREE OF CHARGE as they become available. Complete the coupon and return it to our Sidcup branch and begin experiencing a specialist ST service that is second to none.

SILICA SHOP

SIDCUP (& Mail Order) 01-309 1111

1-4 The Mews, Hatherley Road, Sidcup, Kent, DA14 4DX
OPEN: MON-SAT 9am - 5.30pm LATE NIGHT: FRIDAY 9am - 7pm

LONDON 01-580 4000

52 Tottenham Court Road, London, W1P 0BA
OPEN: MON-SAT 9.30am - 6.00pm LATE NIGHT: NONE

LONDON 01-629 1234 ext 3914

Selfridges (1st floor), Oxford Street, London, W1A 1AB
OPEN: MON-SAT 9am - 6.00pm LATE NIGHT: THURSDAY 9am - 8pm

ATARI ST

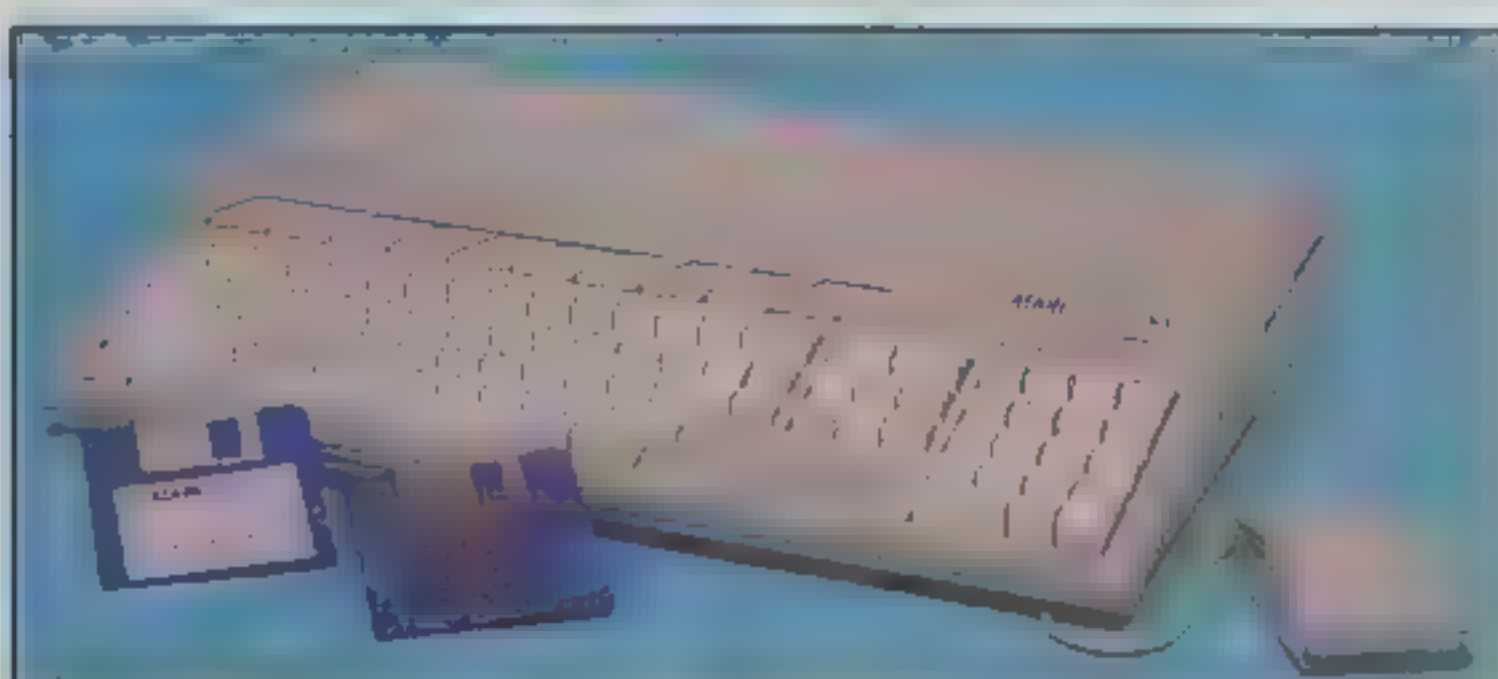
ST COMPUTERS

The range of Atari ST computers offers something for everyone. From the games enthusiast who wants the challenge of the very best in arcade action, to the businessman who wants to make financial forecasts or faultless presentations. The ST offers high quality graphics, sound and speed for the gamer, whilst providing a fast, user friendly and affordable solution to business. The ST is now firmly established in the home environment and boasts a wealth of users in education, local government, television, and a variety of different businesses. Software for the range stretches to cover applications as diverse as ENTERTAINMENT, ACCOUNTS, ART, COMMUNICATIONS, COMPUTER AIDED DESIGN, DATABASES, DESKTOP PUBLISHING, EDUCATION, MUSIC, PROGRAMMING, SPREADSHEETS, WORD PROCESSING and more. For a full list of the software available, as well as details of the ST range, complete and return the coupon below.

All prices correct at the time of going to press. E&OE

520ST-FM EXPLORER PACK

WITH BUILT-IN 1Mb DISK DRIVE



The value for money offered by the Atari ST range is reflected in the Explorer Pack featuring the 520ST-FM computer with 512K RAM. The 520ST-FM computer now comes with a built-in 1 Mb double sided disk drive as well as a free mouse controller and a built-in TV modulator. The new 520ST-FM Explorer Pack includes the 520ST-FM computer, the arcade game Ranarama, a tutorial program and some useful desktop accessories. In addition, if you buy the Explorer Pack from Silica, we will give you the Silica ST Starter Kit worth over £200, FREE OF CHARGE. Return the coupon for details of our Starter Kit and of the full ST range.

£260

FREE LITERATURE RETURN COUPON NOW!

+VAT=

£299

+ SM124 mono monitor: £398 INC VAT

+ SC1224 colour monitor: £598 INC VAT

WHY SILICA SHOP?

Before you decide when to buy your new Atari ST computer, we suggest you consider very carefully WHERE you buy it. There are MANY companies who can offer you a computer, a few peripherals and the top ten selling titles. There are FEWER companies who can offer a wide range of products for your computer and expert advice and help when you need it. There is ONLY ONE company who can provide the largest range of Atari ST related products in the UK, a full time Atari ST specialist technical helpline and in-depth after sales support, including free newsletters and brochures delivered to your door for as long as you require after you purchase your computer. That one company is Silica Shop. We have been established in the home computer field for ten years with an annual turnover in excess of £5 million and can now claim to meet our customers requirements with an accuracy and understanding which is second to none. But don't just take our word for it. Complete and return the coupon below for our latest literature and begin to experience the Silica Shop specialist Atari service.

SILICA STARTER KIT: Worth over £200. FREE with every Atari ST computer bought from Silica.

PROFESSIONAL PACK: Free business software with 1040ST-FM and MEGA ST's bought from Silica.

DEDICATED SERVICING: 7 full-time Atari trained staff with years of experience on Atari servicing.

THE FULL STOCK RANGE: All your Atari requirements from one place.

AFTER SALES SUPPORT: The staff at Silica are dedicated to help you get the best from your ST.

FREE CATALOGUES: Mailed direct to your home as soon as we print them, featuring offers as well as all of the new releases.

FREE OVERNIGHT DELIVERY: On all hardware orders shipped within the UK mainland.

PRICE MATCH PROMISE: We will match competitors on a 'same product same price' basis.

FREE TECHNICAL HELPLINE: Full time team of Atari technical experts always at your service.

FREE SILICA STARTER KIT

WORTH OVER £200

WITH EVERY ST - RETURN COUPON FOR DETAILS
ALL PRICES QUOTED INCLUDE FREE UK DELIVERY

To: Silica Shop Ltd, Dept 23-NCE-0490 1-4 The Mews, Hatherley Rd, Sidcup, Kent, DA14 4DX

PLEASE SEND FREE LITERATURE ON THE ATARI ST

Mr/Mrs/Ms:

Initials:

Surname:

Address:

Postcode:

(23) NCE 0490

Do you already own a computer
If so, which one do you own?

DTP ☐

SCHOOL'S OUT FOR SOFTWARE

The market place is already bulging with software aiming to educate your offspring, so we set up the *Express* blackboard, donned mortar board and gown, and went back to school.

Educational software written for schools isn't suitable for home use. As well as functioning best in a structured institutional environment, it is looked on as an imposition by the kids, as if they had been told to do extra homework.

To catch and hold the young mind, software must be creative and able to stimulate without being too repetitive. At the same time it must have a specific teaching or test target. This may be a simple literacy or numeracy test for primary school aged children, a language tutor for secondary students or even a course aimed at A-level and beyond.

The watchword is interest. If it is dull, repetitive and boring, the mind will soon wander and the task will lose its value.

Many educational programs take advantage of a child's (or adult's) willingness to play games and embed

The home computer has always been touted as an educational machine, but where do you look for decent software. Keith Pomfret has a few suggestions to make...

the task in an interesting game scenario. A good example of this is *Giant Killer* by Topologika, which is described as a maths adventure. It takes the form of an adventure game with problems and tasks of an arithmetical nature.

STIMULATING

Stimulating the imagination as well as promoting creativity and encouraging problem solving makes this kind of program a good entry to educational computing.

The BBC B was traditionally the educational computer in the UK with schools flocking to buy it on a generous discount. Parents bought the BBC for home use, and a large software base was soon established.

After a slow start, other machines attracted the educational software writers and there is a good range of educational material available across all ages and all of the popular micros.

Some of the original educational programs were slow, dull, colourless creations, written in BASIC and with all the allure of a Lada. Parents bought these purely on their educational tag and after a couple of screens full they were consigned to the dusty shelf where they are today.

Thankfully, we have more and better choice now, and it is the norm for parents to spell out their requirements before parting with cash.

In a shop, this is easy. Let the kids try the programs out before you buy. If your kids get bored in the shop, you know to avoid it.

A lot of educational software is sold by mail order as well. Although you can't try before you buy, a call to the software house is a good indication of the quality to expect. In the main, we have found educational publishers to be dedicated academic people with a genuine interest in the development of future generations.

Give you a taste of what's available. We looked at some of the more well known educational programs available on the micro for children and students. We've picked out those of particular merit but it isn't an exhaustive or comprehensive list. There are many good programs waiting to be tried. Remember to try them in the shop. A firm insistence that you try before leaving will pay dividends. If on the phone or a mail order supplier, have a list of your requirements. After you have found a program that hits these, ask what else it can do. Don't settle for a sketchy description.

PROGRAMS FOR YOUNG CHILDREN

GENERAL

• PC PLAYTIME 2

Age range 4-8 • PC

A range of subject matter from arithmetic, graphs and writing to art and games.

From G&M on 061-449 0027

• WHALE DATABASE/WHALE GAMES

Primary upwards • BBC, Archimedes, Nimbus

Even the green issues are finding their way into educational software. These two programs catalogue details about the threatened species and combine them with the National Curriculum database skill requirements.

From Topologika on 0487 831153

LITERACY

• LEARN TO READ WITH THE PROF

Age range 4-9 • All formats

The Prof series aims to cover all the main areas of word learning in a graded course. Each part is divided into three levels and there are four parts. In the read scenario, the parts are reading, spelling, writing and reasoning. Books with illustrations and a listen-along cassette are included.

From Prisma on 0244 326244

• CAESAR'S TRAVELS

Age range 3-9 • C64, Spectrum, CPC

Problem solving for youngsters as Caesar sets out on his

travels. Very popular with parents and children alike.

From Mirrorsoft on 0460 57152

• TOPS AND TAILS

Age range 4-6 • BBC, Spectrum, Electron

A snakes-and-ladders game aimed at teaching young children about beginnings and endings of words.

From Macmillan on 0460 57152

• SPELLING

Age range 5 and over • ST, Amiga

Basic spelling tests using lists that can be preset by the teacher or parent. Good for children who have difficulty with particular words.

From public domain libraries

MATHS

• JUNGLE MATHS & ASTRO MATHS

Age range 5-13 • BBC, Spectrum

Jungle Maths will appeal to the grisly-minded youngster with its cross-the-jungle scenario. Failure is death.

Success is rewarded. *Astro Maths* has a shoot the spaceship game as a reward.

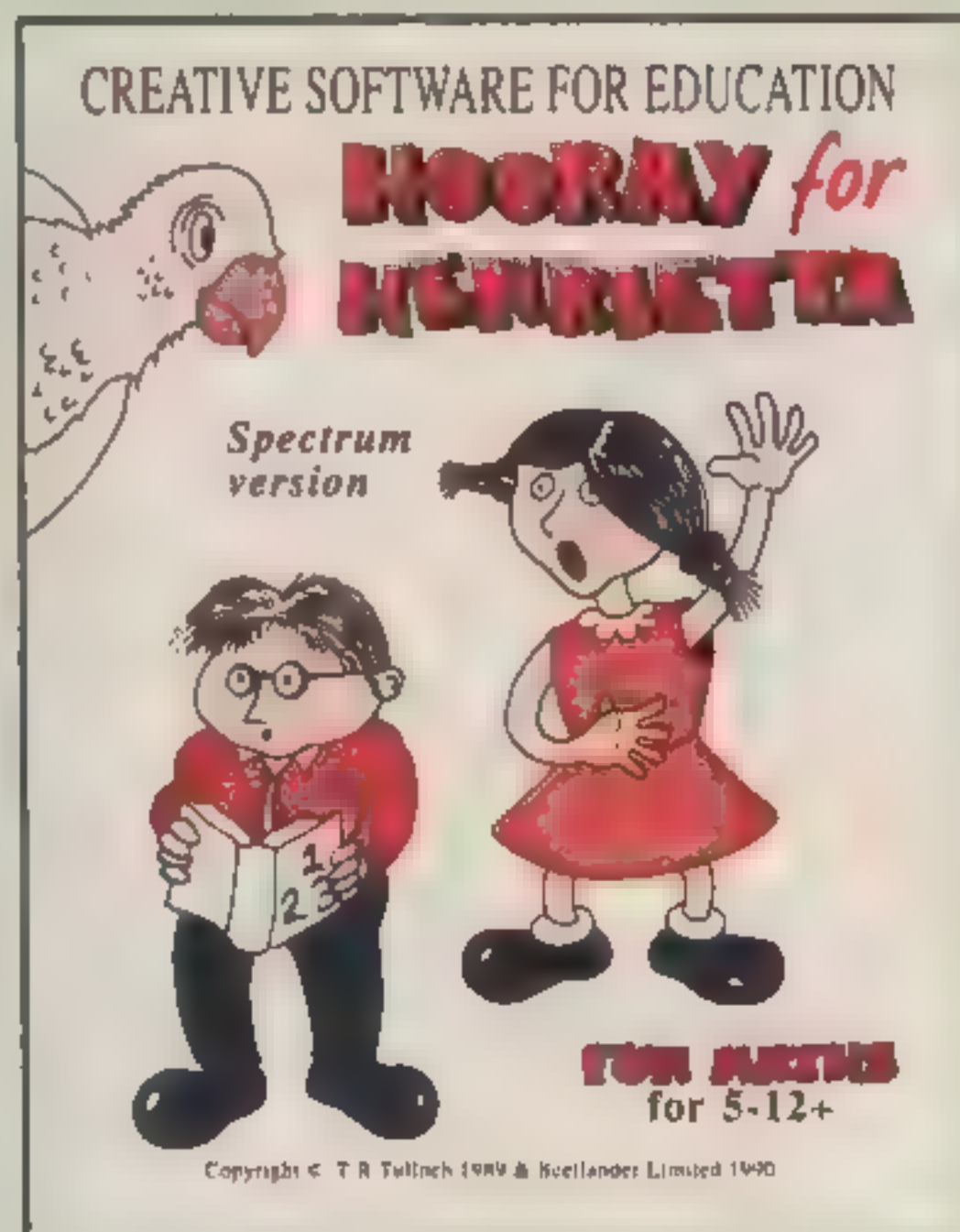
From Scisoft on 0460 57152

• PRIMARY MATHS COURSE

Age range 5-11 • BBC, CPC, PC, ST

24 programs and tests to take beginners up to secondary school level. Animated graphics.

From LCL on 046057152



• Hooray for Henrietta: unlikely scenario.

• HOORAY FOR HENRIETTA

Age range 5 and above • PC, Spectrum

A program aimed at the younger child where the problem solving is deliberately linked to a scenario that involves a parrot trying to stop a wedding. Very good picture/problem course.

From Scetlander on 041-357 1659

FTWARE

Two distinct areas emerge in home education. The first is the formal academic curriculum with subjects such as maths, English, history, various languages and sciences. These tend to follow the needs of the National Curriculum and be targeted at specific courses or exams. Programs covering these areas are the most difficult to use in a home environment because they bear a close resemblance to traditional schoolwork. It would be a very conscientious pupil who rushed to a task that resembled school.

These programs are useful for children who wish to augment their schoolwork or get experience at a subject that they need to improve on, but may require more parental stimulation before they take the place of entertainment software.

At the younger end, they tend to be graphic and picturesque with happy faces and smiling rewards. A good formal program will take note of the performance and adjust itself as it goes along. It will always present an attainable goal but still require an effort.

Informal educational packages can come in many guises. They all have one thing in common though – problem solving or learning is tied up in a sugar coating. The exercise may take the form of a task or game that is enjoyable to play while gently stimulating the brain.

Although this type of program rarely follows a formal curriculum, they can be of more help because the enjoyment in using them makes it easier to keep the child's attention.

MACHINE SPECIFICS

More and more machines are being bundled with learning and applications software in a bid to promote the serious user base in home computing. Last autumn, Commodore brought us its Class of the '90s pack based on an Amiga. Acorn's spring offering was The Learning Curve, an A3000-centred bundle. These aren't low-cost options but you do get a good machine for your money.

The Learning Curve pack contains a BBC A3000 computer and applications for writing text, drawing pictures and making music.

A word processor, First Word Plus is included with a 70,000-word English spelling checker. There is the PC Emulator to let you run the range of PC software, and the package is completed by Genesis, an integrated suite of programs

including a personal organiser and phonebook.

Information files are included on subjects as diverse as green issues, recipes and the solar system. A database of composers plays a snippet of the composer's work, as well as providing screen based information.

To tie it all together a video cassette narrated by Fred Harris (of the now defunct Micro Live) will explain what the system can do, as well as providing ideas and inspiration for projects. A cheque for £799 will buy the pack, but Acorn have left the choice of printer and monitor to the individual. This could mean a £1,000 plus bill to get started.

Commodore's Class of the '90s pack was aimed at the classroom when announced in the autumn, but

Commodore UK says that half of the enquiries come from parents who want it for home use.

Included are an A500 Amiga; Amiga Logo, which is a simple programming language designed for young children; a BBC emulator which allows a lot of software designed for the BBC to run on the Amiga; Superbase Personal, a database and card filing program; Maxiplan, a spreadsheet; Dr T's MRS, a MIDI studio; a MIDI interface and Publisher's Choice. Publisher's Choice is a suite of applications that includes a word processor and PageSetter 1.2, a desktop publishing package.

Curiously, Commodore have left out monitor and printer as well, and the £573.85 price tag will creep close to four figures when they are added.

LOOKING ABROAD

As well as our own market, it is worth looking overseas to see what other countries provide for their children.

In France the educational market is very strong, with a proliferation of titles for all available machines. The French take education very seriously, and it's a pity that the language difference precludes us from dipping into their rich source of supply.

Further afield in the US, education takes an important role with over 40 per cent of listed home software companies producing home educational packages.

The global trend is toward education, and with more schools buying computers it is only time before every home has computer literate children willing to use this valuable equipment to do more than kill aliens.

PROGRAMS OLDER CHILDREN AND STUDENTS

MATHS

• UNTRIVIA

Various ages • BBC, Nimbus, Archimedes
Catch up with your maths. This is the second in the National Curriculum catch-up series and contains the facility to put together your own quizzes as well as answering the set ones. Quiz disks are available for maths for ages 8-11, 12-14, and 15-plus, and science quizzes are in preparation.
From Topologika on 0733 244682

• MICRO MATHS

Age range 8-adult • All formats
24 programs for self tuition or revision. Starts with simple building-block maths such as averages and builds up to O-level with more advanced topics such as differential calculus.
From LCL on 0460 57152

• BETTER MATHS

Age range 12-16 • Amstrad CPC, PCW, BBC, C64
A fully comprehensive maths course taking into account curriculum needs. One of a series of courses from School Software in Limerick.
From School Software on 010-353 61 27994

LITERACY

• PUNCTUATE!

Age range 8-adult • BBC, Nimbus, Archimedes, PC

The first 'Catch up with the National Curriculum' program. A story is displayed with certain punctuation missing. The student has to replace the punctuation using clues where necessary. Speed can be set from untimed to whirlwind, making it as relevant to students with learning difficulties as to high-flyers.

From Topologika on 0733 244682

• MICRO ENGLISH

Age range 14-16 • All formats
24 self tuition or revision programs leading to an ordinary level pass. Audio tape included. From elementary spelling to figures of speech.
From LCL on 0460 57152

• WORDPOWER

Various ages • BBC, C64, Spectrum
A collection of spelling games covering synonyms, opposites, similes, and collectives. Two speeds, sound effects and scoreboard.
From Sulis on 0460 57152

LANGUAGES

• MODERN LANGUAGE SERIES

Age range 11 plus • All formats

The Spanish Tutor, The French Mistress, The Italian Tutor, The German Master, and The Welsh Tutor all follow the same format, allowing learning, self-check, test and edit. They are designed to teach the languages in the most

useful way to the student while maintaining a strong structure. Each subject is divided into A and B sections with B being the continuation and progression.
From Kosmos on 0460 53176



• Meet your German tutor.

GENERAL

• YES CHANCELLOR

Age range 11 plus • BBC, PC, CPC
A simulation of the British economy with strikes, elections and polls. It's your job to decide what to borrow, how high to set interest rates, what to give to industry and pay claims and how to present your budget.
From Chalksoft on 0460 53176

• ANSWER BACK QUIZZES AND FACTFILES

Various ages • All 8 bits and PC
There are two quizzes, one is for junior and the other is for secondary students. They are general-knowledge based. The factfiles cover a multitude of subjects including first aid, history, science and geography, and range from six years to adult.
From Kosmos on 0460 57152

MUSIC AND THE ATARI ST

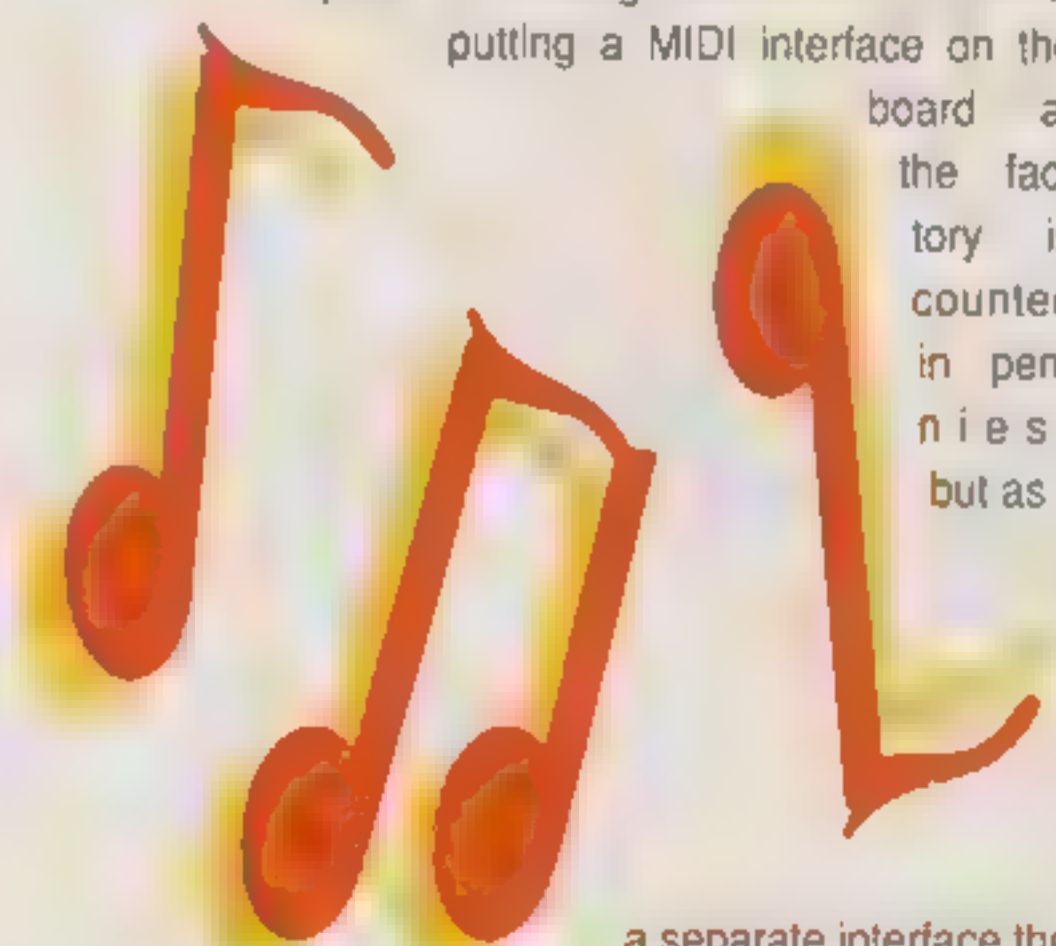
This week our music series turns its attention to the Atari ST – a machine that has traditionally been the leader in things musical. Jon Bates surveys the software on offer.

Until the introduction of the STE, the ST had one of the worst internal sound chips – an accolade it shared with several other computers as we shall see in the next few weeks. Although there are several programs around that use the internal chip to create sounds, in the main they are of novelty value only, and more often than not found in the public domain end of the world.

Like many other computers, the ST is able to convert stored sound samples back to sound, although no-one would claim that the ST is the ultimate sampling machine. There are bolt-on samplers, as we shall see, for the ST.

As a stand-alone music machine then, the ST is not precisely the bee's knees. However Tramiel and Co know a thing or two about marketing and so it was, and still is, the only mainstream computer to incorporate built-in MIDI ports. The advantage of this is that for the home user it means there is one less expense on the path to making music. The cost of putting a MIDI interface on the

board at the factory is counted in pennies, but as



a separate interface the prices vary from £25 for some machines to a wallet-stinging £250 for others. It also means that there can be no incompatibility worries; all ST MIDI software is bound to run since the interface is built-in.

BUZZWORDS

The buzzwords for the cognoscente are again 'universal editors' and 'multiple environments'. Universal editors are synth editors that can be configured for any synth – provided you know your way around the systems-exclusive MIDI codes or can buy a template that works. Multiple environments are those where several programs can co-exist and be called to the fore as

required. If the programs are from the same stable or there has been some friendly agreement between software developers, then it is likely that alterations made in real time may well be noted in the other programs. Even if this is not the case, the additional software will hang around as a desk accessory.

All this talk of interactive software assumes that you have lots of memory (and cash) to spare and we all know that this is not always the case! Let's start at the bottom end with starter packages that require no extra equipment. Unless stated, the software will run on all models of ST.

STARTERS

No extra equipment means that music can be entered from the QWERTY keyboard and the sounds are those created internally. Two packages fit the bill nicely, and oddly enough they are both in Dr T's family.

Music Recording Studio and *Tiger Cub* are both starter packages that follow the traditional lines of sequencing in terms of screen presentation; that is, the screen looks a little bit like a tape recorder. Both have well established sections that deal with quantisation – the rounding up of notes that are slightly out of time. Editing is a little more tricky for the beginner with *MRS* as you are presented with a list of numeric data.

Tiger Cub, on the other hand, uses a neat form of graphic notation with a very fast editing feature, especially when it comes to editing MIDI controllers, volume, pitch bend, modulation and tempo changes. Both programs are fully MIDI compatible when and if you decide to upgrade your system with external sound generating equipment.

Tiger Cub also has a routine that breathes life into the extra sound chip found on the STE, so owners of the STE will benefit quite a lot. If this applies to you, then check that the version of *Tiger Cub* that you buy

does support the STE sound chip, as early versions didn't.

MIDI SEQUENCING

To do this you are going to have to have an external MIDI-equipped instrument. Having lashed out on that, where do you start for software? At present there are probably more sequencing packages about for the ST than any other computer, so you have a wide choice. What I've gone for here is ease of use for the beginner coupled with good results.

The public domain has two sequencing packages worth a mention. They are generally known as the *Waddington* sequencer and the *Cosh* sequencer after the surnames of their respective authors. The *Cosh* is quite a bit more refined and this may lead to some confusion in your first encounter with it. But it is a very good sequencer with great editing facilities and full MIDI support. For the price it is ridiculously good value.

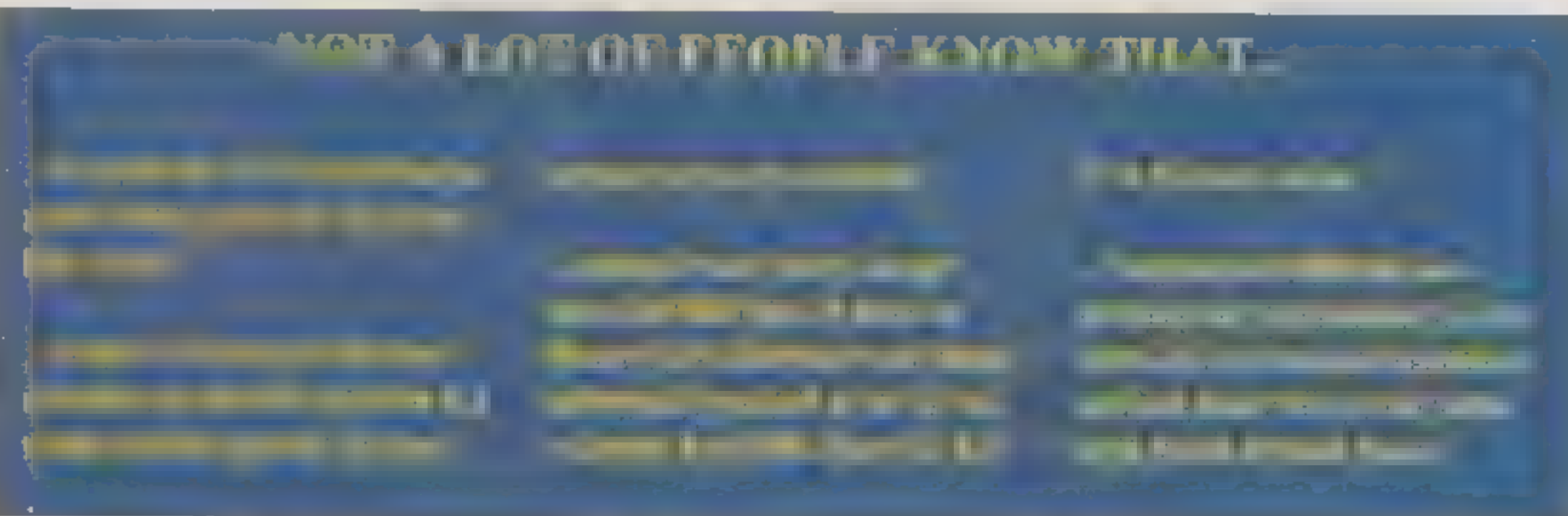
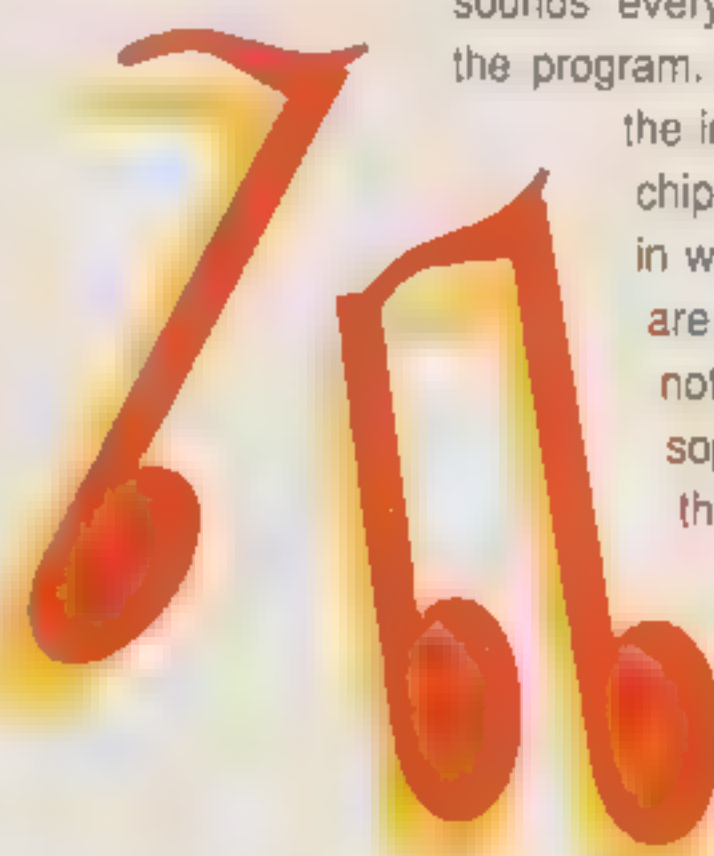
Coming in at a very low price is the *Super Conductor* MIDI sequencer from Microdeal which will record and play back 16 separate tracks. Again, this scores highly since it uses graphic display for showing how the small blocks of your tune can be chained together.

It has basic quantise features, but is clever enough to record exclusive data relevant to the sound that the synthesiser makes, so that you can be sure of the same sounds every time you use the program. It does support the internal ST voice chip but the manner in which the sounds are manipulated is not the most sophisticated in the world. It makes for a low-cost entry-level program with a fair amount of potential,

although the editing of individual parts is a bit fiddly as you have to deal with strings of numbers for each note. Apart from that, copying sections is very easy and simple to do.

Still under the magical £100 figure are two more pieces of software. *Sequencer One* is a nice easy package to use, although it is totally MIDI with no internal voice support. Thirty-two tracks can be operated simultaneously with visual track naming and manipulation. Small patterns can be earmarked as blocks and moved around, and there is a cue list for the blocks on the main screen. Editing individual notes is a little time consuming, but is actually a lot easier than the stream of numeric data encountered in other programs.

The other contender is *Track 24*. As the name implies it has 24 tracks for you to play with and record on. However it is able to record chords on one of those tracks in step-time by typing in the name and type of chord. Manipulation of marked blocks of music is not as



good as the others but you can do a real-time mixdown which can include tempo changes. Editing uses traditional music notation, and is slightly peculiar since you can only see one line at any one time; if you have chords on one track it will only let you see one note at a time. MIDI is well looked after though, and is straightforward to use.

There is one program that comes in under £100 that is slightly different to those mentioned above. *FM Melody Maker* is a hardware and software package. The hardware has a store of FM sounds and the software lets you program them up into tunes. What happens is that it turns the ST into a sort of portable keyboard.

You write in the chords and melody line, pick an accompaniment style and away the program goes, chugging away merrily with bass line, backing chords and drums. You can alter the balance between these and change the sounds if you wish. Thrown in for good measure is a very simple (and I mean simple) one-shot MIDI recorder plus a drum pattern programmer – the latter two have no relevance to the rest of the program whatsoever.

The good news is that you can use this hardware with the new *EZ Track* sequencer to have a complete workstation for music – although to speed matters up a separate keyboard to input music would still be a good idea. Price for the all-in package should still be under the £100 mark.

OVER THE TON

Between £100 and £200 we have *Prodigy*, *Trackman*, *Studio 24*, *Big Band*, *Mastertracks Pro* and *KCS* – a very difficult choice as all the programs have both merits and problems. *Studio 24* and *Big Band* are overgrown versions of *Track 24*. *Big Band* has some quite

smart auto-arranging features which add extra harmony lines to yours. It can even create melody lines!

Prodigy is a 32-track cut-down version of *Virtuoso* which has some very fast features; pianola style editing, advanced quantise and more. It takes little bit of getting used to but the promised add-ons like scoring packages and GEM compatibility (*Prodigy* uses its own environment) make it seem a contender.

Trackman, now in its second version, is very much a musician-led program: that is to say that it is simple and instinctive to use but it has many advanced features should you choose to call them in. It is certainly the most advanced program in this price bracket and it has a stable mate in the form of *MIDIman* – of which more later.

KCS and *Mastertracks Pro* are very good programs but take a back seat to the competition for various reasons, generally speaking to do with the architecture of both programs.

OVER £200

And now the expensive bit. For the sort of money we are talking here I think we can assume that you are serious about music. *KCS Level 2*, *Creator*, *Notator*, *Cubase*, *Pro 24*, *Virtuoso*; the names roll off the tongue like so many pound coins down a well. Here I think it does get to be a subjective choice, depending on the way you are working.

Creator and *Notator* (the scoring version of *Creator*) are exceptional programs provided you can get through the manual. *KCS Level 2* is very powerful but has a non-graphical editing environment. *Cubase* is extremely powerful and appears to multi-task, but even the demonstrators say that it isn't straightforward. *Pro 24* is now close to retirement age and is probably a good bet on the second-hand market. *Virtuoso* has



SERIES

updates around the corner, is extremely fast and pretty logical to use, but I do have reservations about the note editing and block chaining functions which don't seem all that obvious.

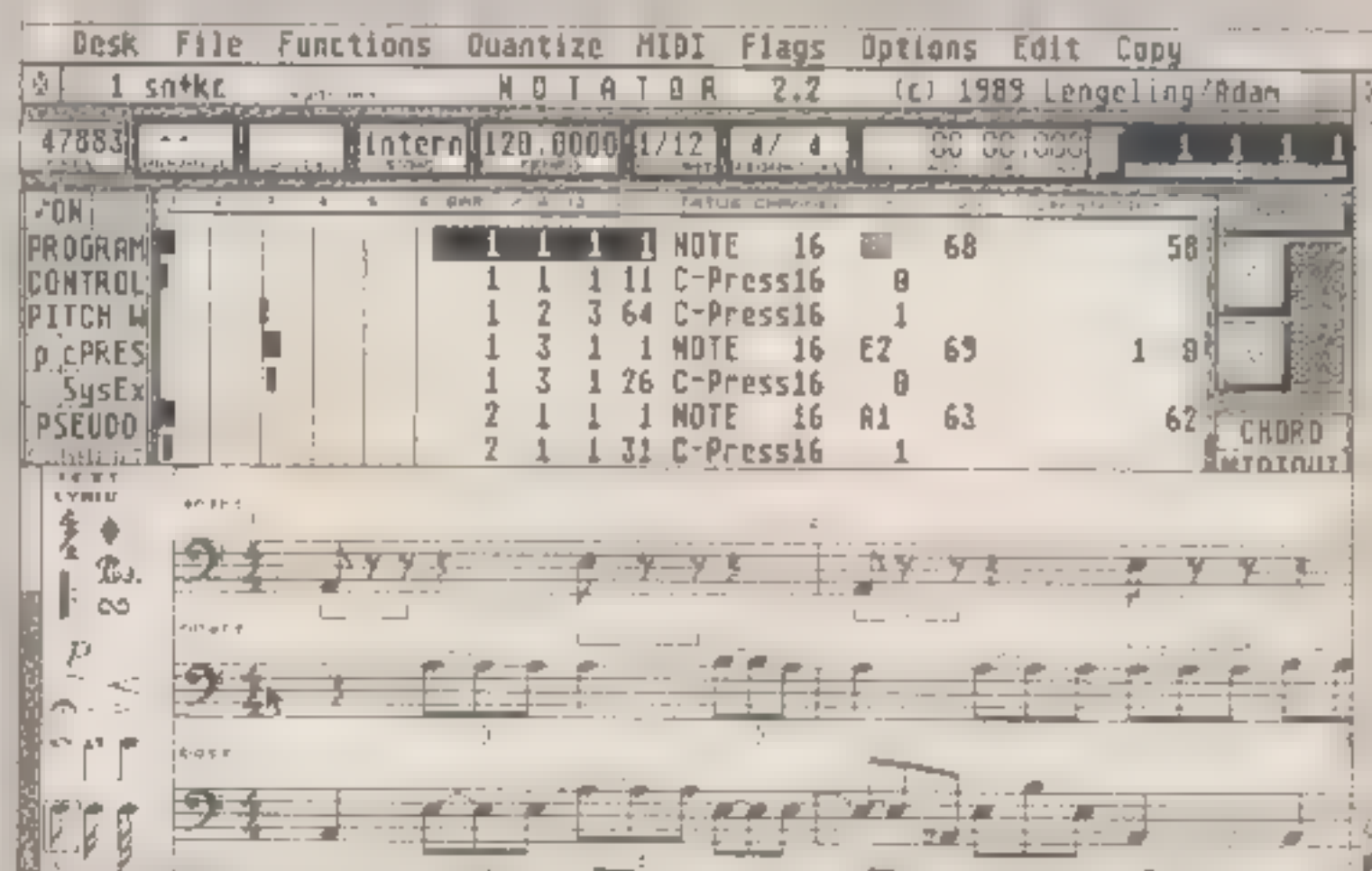
As I said, it gets to be a matter of personal taste. None of these support the internal voices and most of them will require a 1040 with high-resolution mono monitor. They all have solutions to the multiple program co-existence problem.

Virtuoso will have the hardest job as it leaves GEM for its own environment and you have to suspend operations while you return to GEM. Dr T and Steinberg have their own little lands of fun called MPE and MROS respectively, while C-Lab has Softlink. However I have heard that Dr T and C-Lab are opening their hearts up to one another; the concept is that their programs will talk to one another while co-existing.

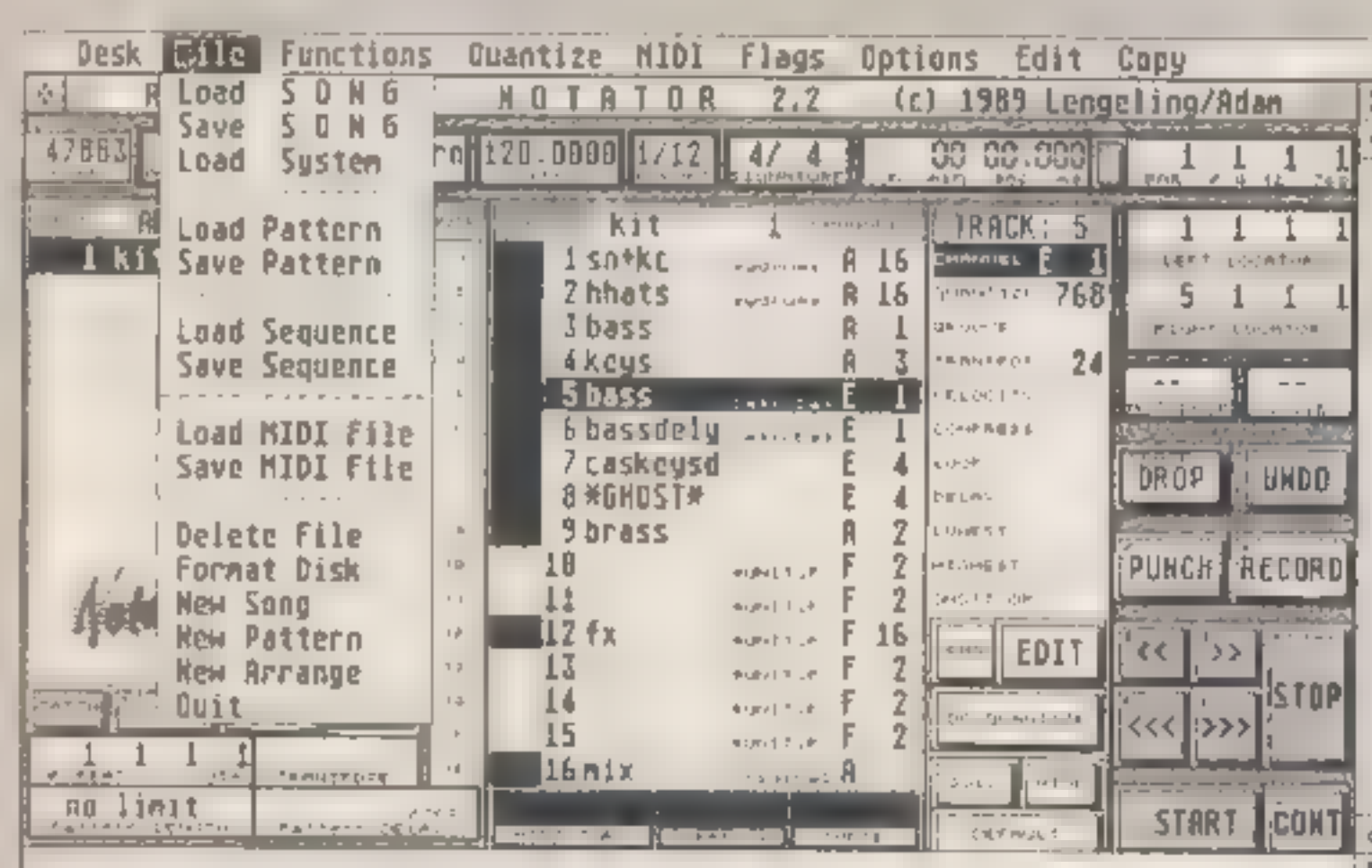
SAMPLERS

Everyone likes to mess about with a sampler. If you haven't then you have missed out the fun of remixing your very own James Brown record. As studio quality samplers that employ the ST to merely oversee their business come in with a severe four-figure price tag, I have restricted us to the simple fun-time sampler.

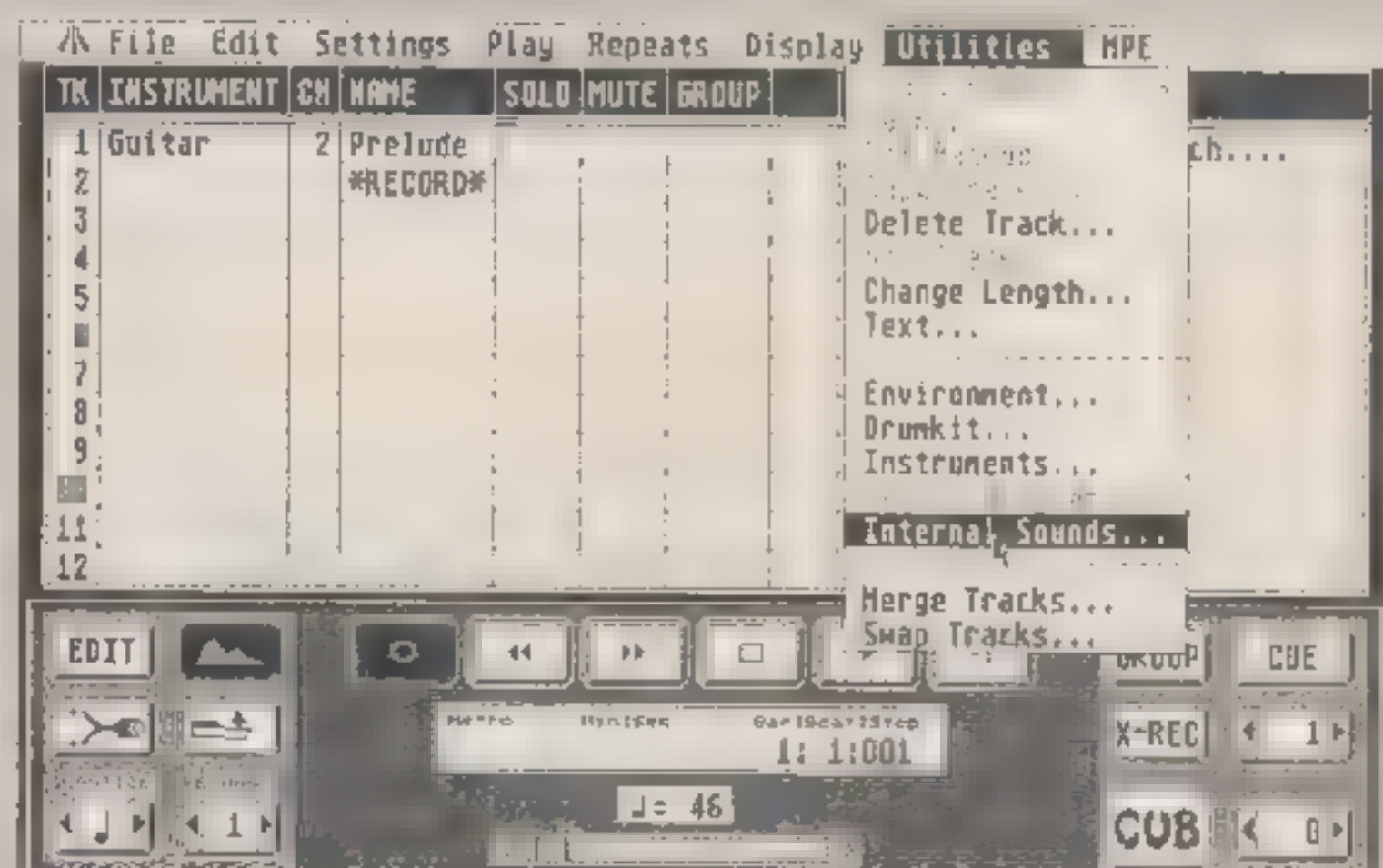
The best known are the numerous versions of



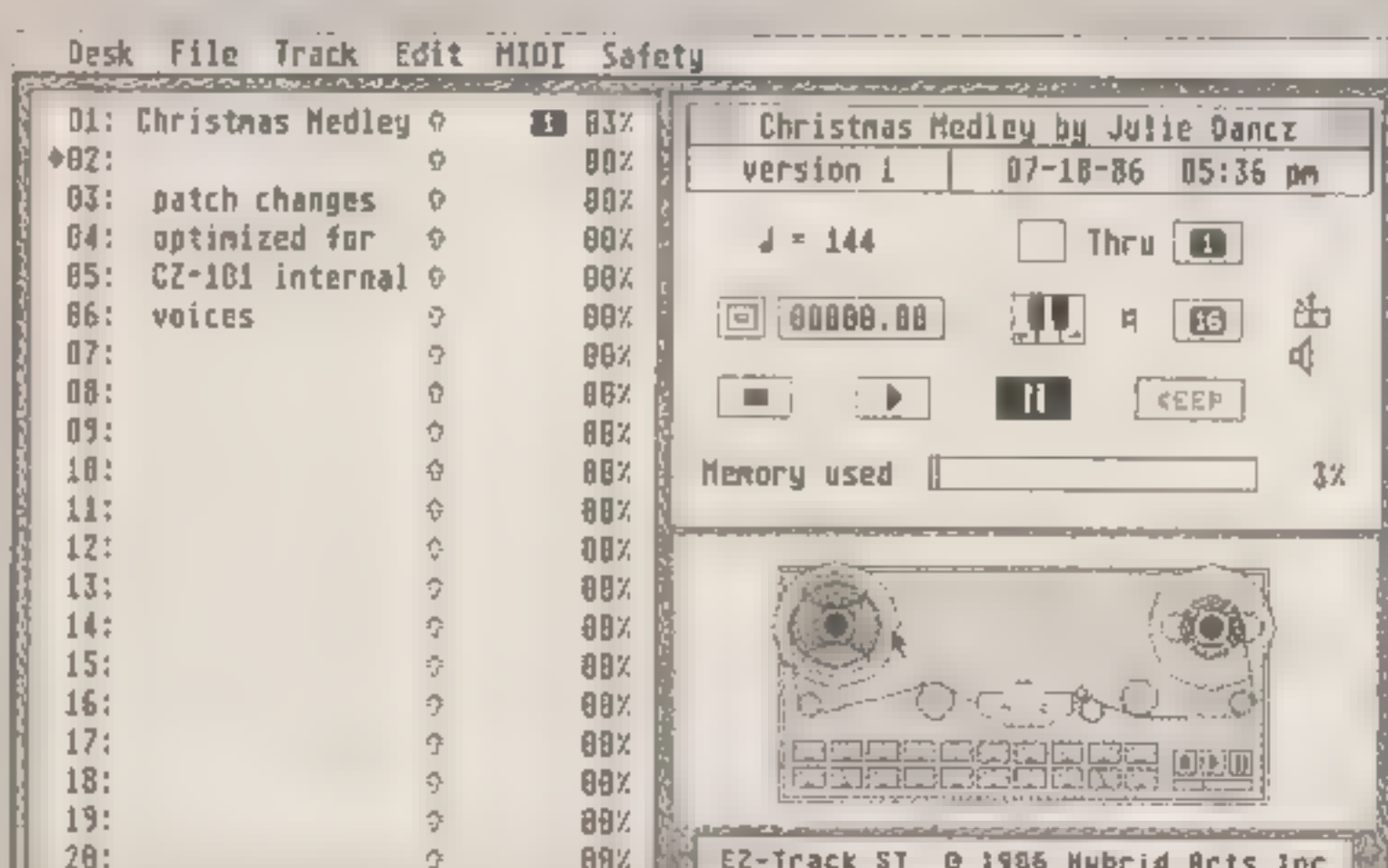
• Full score editing in Notator.



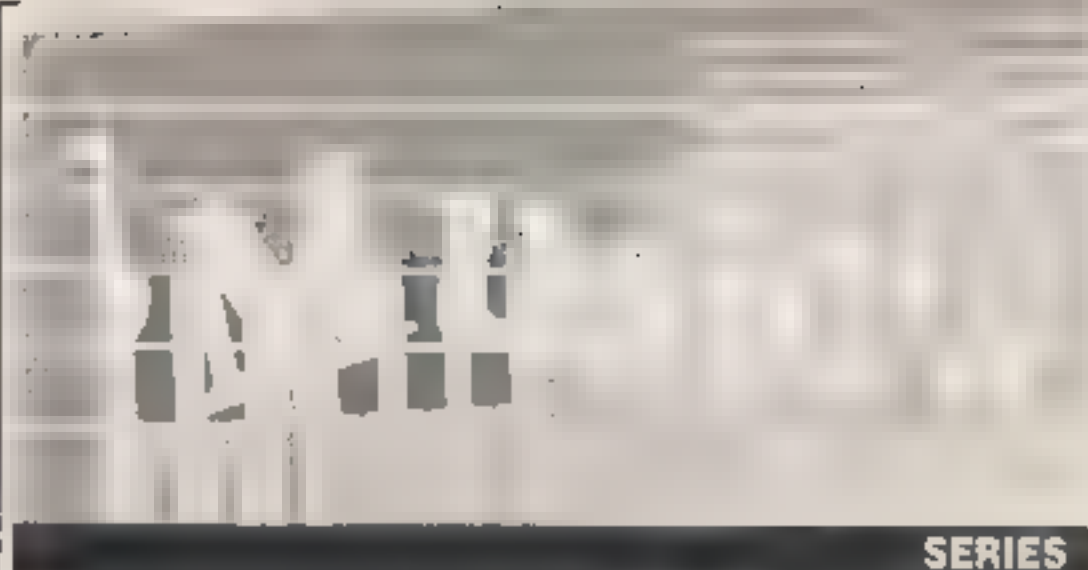
• Notator's main screen: expensive but professional.



• Internal sounds are available when you use Tiger Cub.



• EZ-Track; now adapted for use with FM Melody Maker.



SERIES

Replay. Now in its 5th edition, known as Replay Pro, this is still a good machine to get to grips with. It has some MIDI specifications, although sadly you need to trigger the samples from an external keyboard or sequencer to use them as part of a piece of music.

VOICING SOFTWARE

It would be an extremely time consuming task if I were even to pick the best of programs for individual synthesisers, let alone all of them. The list for the ST is endless. The move, however, is towards the universal programmer and librarian. There are a few for the ST and the ones worth a look at are *MIDIman*, *GenEdit*, *X-*

Music Recording Studio • £59.95 • 01-724 4104
Tiger Cub • £99 • 01-724 4104
Super Conductor • £37.50 • 0726 68020
Sequencer One • £79 • 061-434 2768
Track 24 • £75 • 021-733 2063
Studio 24 • £120 • 021-733 2063
Big Band • £175 • 021-733 2063
EZ Track • £POA • 01-883 1335
FM Melody Maker • £69.95 • 01-883 1335
Prodigy • £129.95 • 01-586 3445
Trackman • £179 • 0256 477222
Master Tracks Pro • £199 • 01-724 4104

KCS • £209 • 01-724 4104
KCS Level 2 • £299 • 01-724 4104
Creator • £299 • 0462 480000
Notator • £499 • 0462 480000
Replay Pro • £120 • 0726 68020
Cubase • £550 • 099389 228
Pro 24 • £150 • 099389 228
Virtuoso • £299 • 01-586 3445
MIDIman • £89 • 0256 477222
GenEdit • £99 • 01-883 1335
X-oR • £139 • 01-724 4104
Chameleon • £89 • 0761 32610

oR, and *Chameleon*. Here's how they break down.

MIDIman is the partner and desktop accessory of *Trackman*. They will interact when working together, but *MIDIman*, like all the universal software mentioned above, will hang around as a desk accessory. *GenEdit* has a prodigious number of templates which enable it to cover many instruments and effects units. The same is true of *X-oR*. *Chameleon* as yet is only a librarian and not a voice editor but this is under development.

The key to all these are the templates (sometimes called profiles). This is the part of the program that configures the software for a particular synth. If a little bit of programming is not beyond you then sorting out your own templates shouldn't be too much trouble. Of course you will need the full MIDI specifications in order to do this, and even then there are problems – like the many occasions when the book doesn't match up with the synthesiser.

If you only have one synth or tone module at pre-

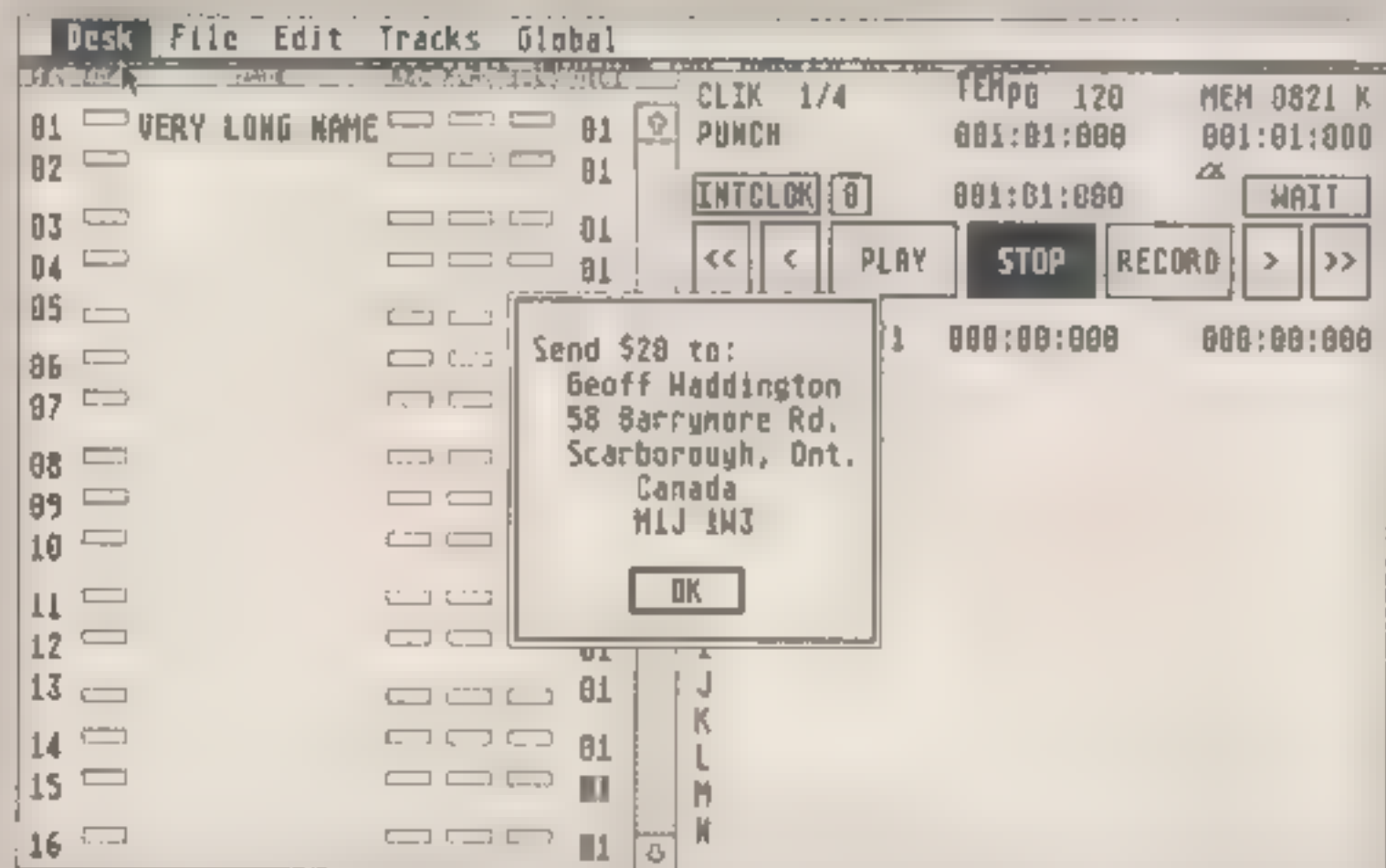
sent you may think that a universal programmer is an unnecessary expense. It won't be when you add a few more machines to the pile and realise the expense of owning individual programming software for each and every synthesiser. ■

NEXT WEEK

Next week the PC is hoisted on the testbench.

Any points or queries you have please write to me at *New Computer Express*, Future Publishing, Beauford Court, 30 Monmouth Street, Bath BA1 2AP, before May 4 as then I can be sure of answering you in print. Mark all letters for my attention.

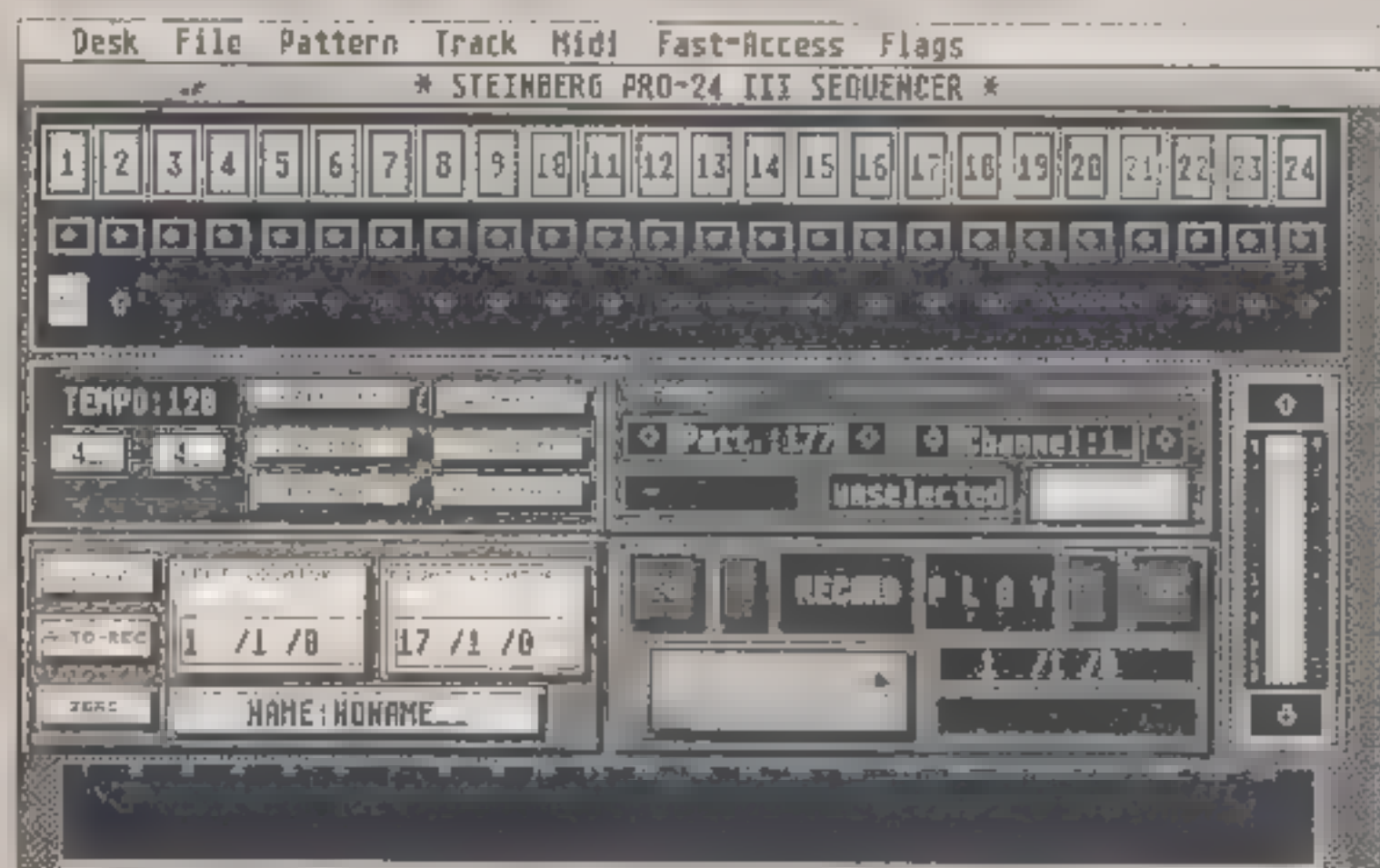
All the programs mentioned above have been or will be reviewed and considered in full in our sister magazine *ST Format*.



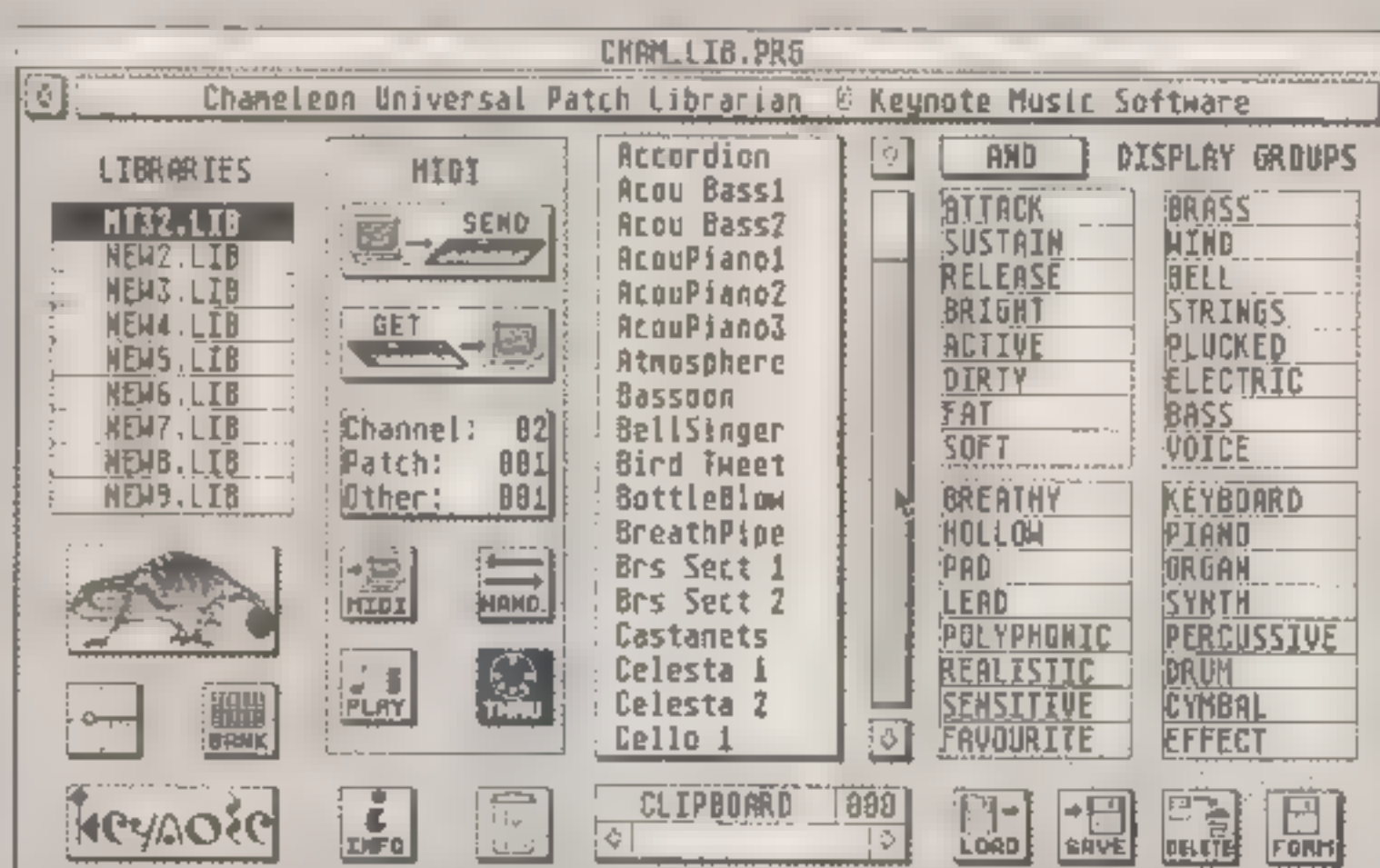
• The Waddington PD sequencer.



• Track 24; easy to use and understand.



• The familiar face of Pro 24 – the face that launched a thousand hits!



• Chameleon is a patch editor which works with many different synths.

POSTAGE PACKING £2.50. NEXT DAY DELIVERY £10.00

TECH TIPS



Screen crazy

Why do some games – especially the cheaper ones – cause the screen of my EGA PC to go berserk with lots of distortion or lots of squiggly lines? I find this especially confusing as I thought the Amstrad ECD was supposed to configure itself to most of the other graphics types (except VGA or higher), but I can't imagine that the games like *Breakout* were written only for VGA machines.

Now for a tip. If a hard disk drive makes horrible clunking noises when it is being read from or written to, it may be that some of the files have become non-contiguous, that is spread all over the disk drive. To cure this use *PC Tools' Compress* (I think that the *Norton Utilities* contain something similar) or if you don't have a copy of these, copy all of the files including the system files to whatever you copy files to (floppies or tape or even

Does your PC keep packing up? Is your Amiga less than friendly? Would your ST try the patience of a saint? Write to Uncle Tech Tip, he'll see you right. Send your sorry stories to Uncle TT, 30 Monmouth Street, Bath BA1 2AP. There's a prize for the most pitiful tale

video), use the MS-DOS *FORMAT* command, then copy the files back again.

My hard card got so noisy I thought there was something wrong with it, but after using *PC Tools' Compress*, which took a couple of hours to run, it is now silent.

Ray Thomas, Bedminster, Bristol.

A lot of public domain programs – particularly games – rely upon undocumented calls to the operating system and little tricks and wrinkles not necessarily supported by ■ machines. The Amstrad range, more than any other PC compati-

bles, have their own way of doing things, and I think that it may be that the machine simply isn't responding correctly to directives from the software. Don't worry, this won't damage the machine, it simply means that some PD software won't run properly (as you've discovered the hard way).

Reading matters

Why are beginners' BASIC publications so hard to find? Is it because there are no beginners out there anymore?

I've been dabbling with and using

computers since 1984 and I thought it was about time I learned to program. So I went out and bought GFA BASIC version 3 and started to read.

This however, is definitely not a tutorial for the beginner, so I got hold of a book by Ian Sinclair (*man of a thousand manuals* – Uncle TT) called *Program in GFA BASIC*. It's a good book I'll admit, but it's also a very rare one.

Why is it that books to learn from are becoming so difficult to find? If I want to learn to program in C, 68000 or Pascal, then almost every publication I've ever looked at assumes some knowledge of programming.

Why do they also assume some knowledge of mathematics or algebra? I'm not thick, but maths is not my strong point, I'll admit. So if you know different to the above or know where I can get hold of some good aids to learning then I would be delighted to know. Also, if anyone is in the Basildon area who's already programming in GFA BASIC or any other language and wouldn't mind helping me out, please help me.

Steve Dixon, 46 Brendon, Basildon, Essex SS15 5XJ.

A sorry tale, but one which I'm not entirely convinced by. After almost ■ decade the home computer industry can probably boast more introductory textbooks than all the other hobby areas put together.

The prolific Mr Sinclair alone must be responsible for a largish rainforest's worth detailing anything and everything (is 'Ian Sinclair' ■ collective pen name for a bunch of writers reluctant to use their own monikers, or does this workaholic scribbler really exist?).

If you really want to be treated as ■ complete beginner, then I suggest you cut along to a branch of Tandys wherein you'll discover a wealth of American text books, replete with 'helpful' cartoon characters and all of which assume absolutely no knowledge on your part save a basic understanding of breathing and generally staying alive.

But seriously, it can be difficult to assimilate the information in some books, but there are several ►

Making the choice now that good old Speccy's bitten the dust

I have owned a Spectrum Plus 3 for five years now and I enjoy playing games on it. Over the years I have built up quite an impressive games collection, but alas my trusty old companion finally succumbed ■ my enthusiastic key tapping and conked out on me.

Time for an upgrade I thought, so I considered these various options:

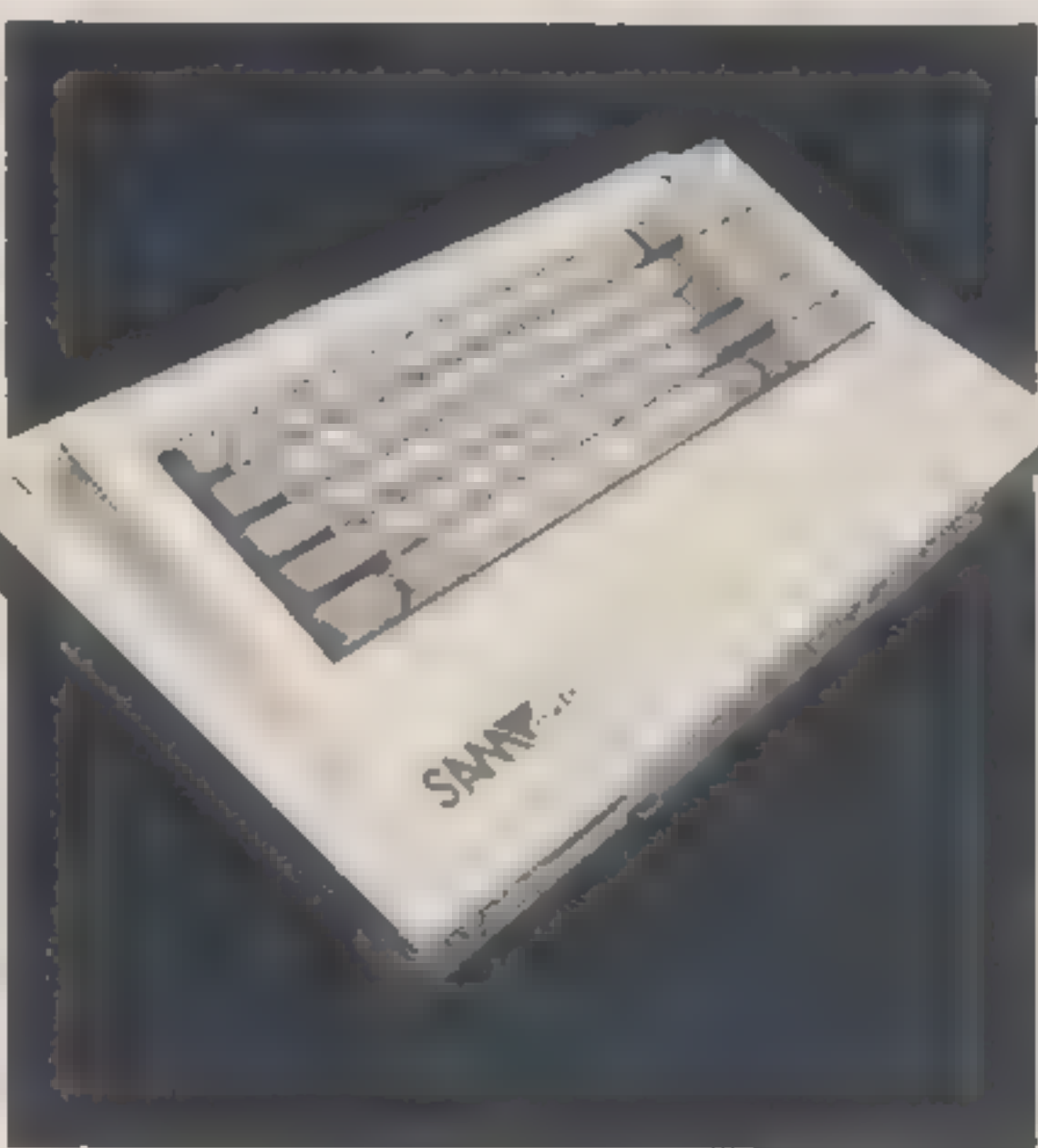
1. Buy a brand new Spectrum Plus 3
2. Buy the SAM Coupé
3. Buy an Atari ST

After several hours of pondering I eliminated option 1. The Coupé seems to be the favourite at the moment because of the lower price and the compatibility with my old Spectrum. However, after reading an article in your magazine about a new Atari ST bundle called the Discovery Pack, I wondered whether or not it is worth upgrading to a 16-bit machine. I would be very grateful you could help me to make a choice.

Colin Moors, Ealing, South London.

There is of course one more possibility. You could have the broken Spectrum repaired by one of the many competent service centres based around the country (several such centres exist in and around London and can be found by reading through *Shopping Express*) and carry on using your original machine.

Spectrum repairs are incredible cheap due to the vast



• Upgrading from a Speccy? Go for the SAM.

availability of spares. And why are you rejecting the purchase of another Spectrum out of hand? Remember, it's a Spectrum that has given you so much computing pleasure over the years, and good though the SAM Coupé is, a compatible machine will never be able to run all of the software which makes up your collection.

OK. You don't want another Spectrum and the choice is restricted to either the SAM Coupé or the Atari ST.

The former has recently been released after several years development and is ■ quality machine offering ■ degree of Spectrum compatibility as well as plenty of peripherals, such as disk drives,

at reasonable prices. The SAM is the subject of much interest at the moment and our very own Robin Alway now devotes one of the *Your Format* columns to the machine.

Atari's ST is also a quality machine with ■ small planet's worth of excellent games and serious software, but it ■ considerable more expensive than the SAM and buying an Atari would instantly reduce your prized collection of software to trash.

Buy the SAM. You'll continue to be able to use existing Spectrum software, buy new programs at cheaper prices than the 16-bit machines and the initial outlay for the purchase of the machine will be considerably less than that required for Atari's machine.

This same-size, camera-ready advertisement produced within PROXIMA, printed on a SHARP laser



Network News Services

DOCK ROAD, TILBURY, ESSEX RM18 7BT U.K. TEL.: 0375:859103

*Web-offset and sheet-fed printers; publishers (newspapers, mags., books).
Photo-typesetting; laser-setting; graphics design; film/plate-making.*

DEALERS IN: DTP SYSTEMS: ATARI PRODUCTS: SHARP LASERS: EPSON

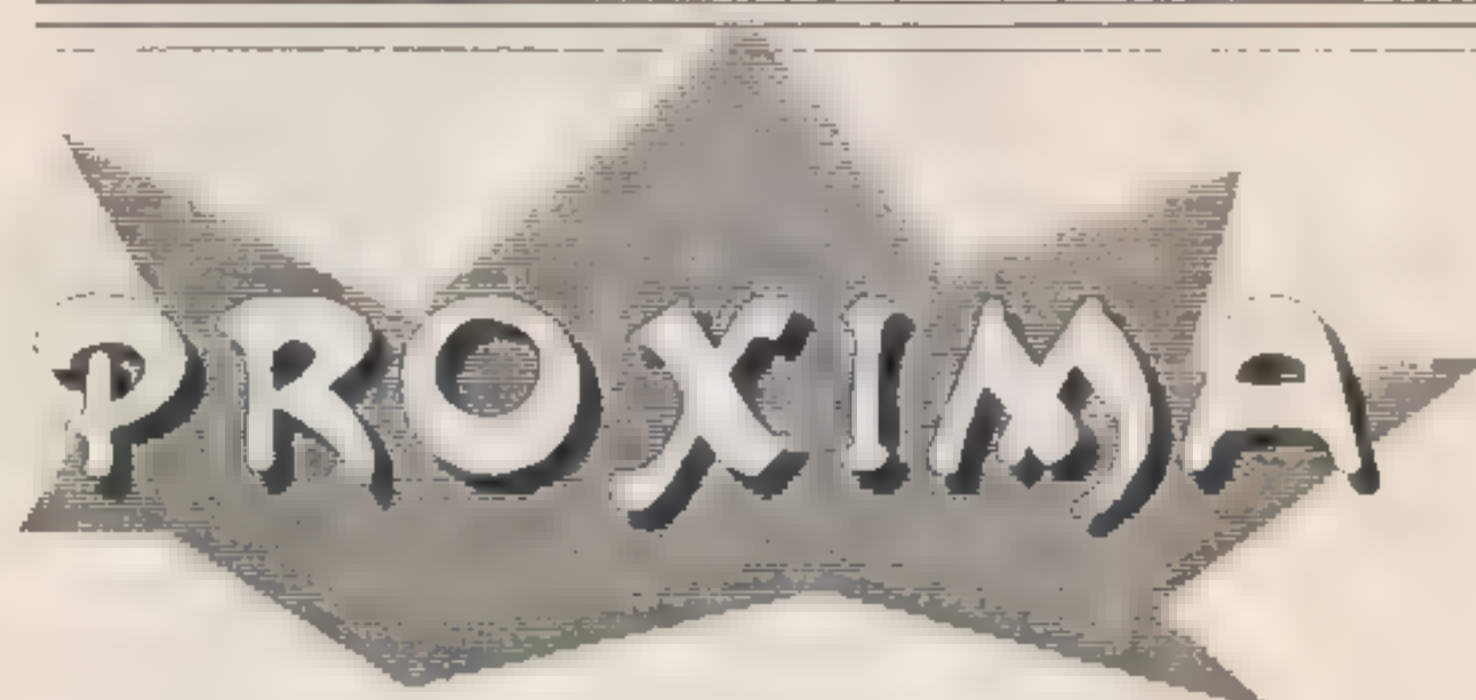
Creators of the PROXIMA DTP/In-house litho printing facility.

FAX:

0375

856108

News from Network



If you're an ATARI user,
there is only one truly
professional dtp package:
PROXIMA. Our firm has
been printing and publishing
for forty years (see above).
We *HAVE* to get it right.

***We are the ONLY U.K. firm of professional
printers and publishers actively supporting
a DTP package. Furthermore.....***

Whether you buy our complete dtp package at £2188 (1 meg. computer, second 1 meg disk drive, high-res. monitor, 2 meg laser printer, mouse, cables and PROXIMA software) or you just buy the software alone, at a miserly £135 (all prices plus VAT), you get access to a 'forever' FREE help line. And not only that:

We'll help you to set up as an at-home PROFESSIONAL printer, using offset litho equipment, just like your local print-shop uses. We'll equip you with a complete print-shop (litho machine, process camera, bromide processor, auto film processor and metal plate-maker) all refurbished and all for about £2000 plus VAT. You use your PROXIMA (or whatever else you have) to generate the artwork. Then you print the job PROFESSIONALLY. Oh....we'll give you FREE tuition and FREE 'forever' support.

If you think all this is a load of flannel, send for our brochure and we'll put you in touch with people all over the country we've already set up. People who are now earning a lot of money in new or secondary careers. We can ALSO give you wide photo-setting support, using Compugraphic and Monophoto fonts.

JX9500



We publish books as:



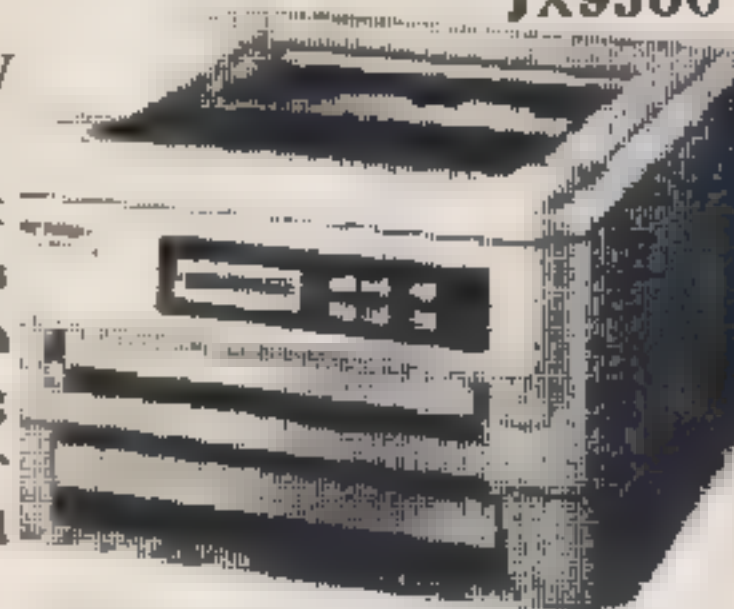
ISBN 1 870130

The LATEST version *Calamus....*

We regard this much-hyped program as being more suitable for advanced amateur use at the moment. Send for an independent review comparing Calamus with Proxima.

The fabulous NEW
SHARP laser:→

We're Britain's first
dealers to offer this
entirely new concept in
lasers. RRP with 2 meg
memory (essential for
dtp) is £1824 + VAT. OUR
PRICE: £1392 + VAT



£299 INCLUDES 1.4
TOS upgrade (6 plug-in
chips), extra fonts and
utilities.

And at: BRISTOL SWANSEA TORQUAY SHEFFIELD

publishers producing inexpensive and worthy little tomes detailing the various programming languages.

Try thumbing through any of the Bernard Babani range (*Learning to Program in C* by Noel Kantaris priced £4.95 is but one example). These books are couched in any easy-to-understand dialogue and priced just right for the beginner. They're available from almost all good book stores.

And no doubt a storm of letters will issue from your letter box the moment this copy of *Express* hits the streets, from kindly Basildon-based Techtipper eager to help.

HELP! More on manuals

After owning a fairly basic Walters PC compatible for almost two years, I would now like to upgrade the machine to take advantage of some of the excellent PC peripherals I've heard are available.

The Walters has eight expansion slots so there's no end of possibilities, but the problem is, I'm stuck for ideas! Is there a good book that would help me to choose

some new peripherals to upgrade my PC compatible?

Andrew Petal, Kingsbridge, Devon.

The PC Upgrade Handbook by Clive Smith was published just for you. This readable manual contains chapters on adding memory, speed enhancements, video adapters, hard disks and hard cards, tape streamers, CD-ROMs, data transfer devices and so on.

Each chapter contains information about buying, connecting and the possibilities for further expansion. Areas such as drive and display operation are fully examined and explained.

Published by the Sigma Press, the book (ISBN 1-85058-118-5) costs £9.95 and is available from the ubiquitous 'good book store'.

HELP! Long Centronics

I am anxious to connect an long extension cord, about four metres in all, to enable me to re-site my printer on the other end of a right-angled desk.

I sent for such with all the pins con-

nected Centronics to Centronics, but it wouldn't work, which has me baffled!

Logically, if all the pins are connected the ones on the interface which needed to communicate with the ones on the printer would do so and the others that needn't, wouldn't, or is this not the case? Either way, it didn't work! Can you assist in advising me the correct wiring for such an extension so that I could get it made, or as to whether it would be more sensible to get an I/O lead made to a suitable length, or would this invite data corruption?

I would appreciate your advice as I am extremely anxious to tidy up my computer room. The set up is an Atari 130XE, twin 1050 disk drives, a Graphics A-T interface and an Epson LX800 printer.

Dave Richardson, Walsall, West Midlands.

A Centronics through lead would need the following connections in order to work correctly: 1 to 9 connected 1 to 9 at each plug, 11 to 11, and 18 to 25 connected to 18 to 25 at each plug.

This would work essentially as an extension of your Graphics A-T

Centronics outlet. Although wrongly connected pins may be the source of the problems with your lead, it's probably that the length between your computer and printer is simply too long.

Parallel signals tend to become very weak after travelling a relatively short distance (when compared with signals across a serial cable), and your parallel cable simply isn't transmitting a sufficiently powerful signal to emerge at the output end.

It's a well-known problem - parallel systems simply weren't designed to operate over any distance. There are a number of printers on the market that operate from the serial port to overcome just this problem.

If it really is important to site your printer so far away from the computer, try using an extension I/O cable, connecting the Centronics printer adapter to that and a short conventional parallel printer cable to the interface.

I can't guarantee this somewhat 'bodged' set-up will work, but if it's that important to you, it may be worth a try - good luck! ■

HELP! Another Techtipper in an Apricot jam

I have owned a 1040STFM for a year now and am very pleased with it, though I can hardly claim to be computer literate - hence the following list of questions. The other day I was given a slightly antiquated-looking machine with the words "I think there's something wrong with it, but you may be able to fix it. Good luck!"

The machine turned out to be an Apricot F2 with twin 3.5-inch floppy drives, a small (approximately eight-inch) monochrome monitor, a battery operated keyboard, two infra-red mice, various manuals and some software including a word processing package called *GEM Write* and even a paint package. Unfortunately the manuals give very little technical information or specifications. I use my Atari ST at home for an increasing amount of word processing work and I would like to know the following:

1. Is the Apricot PC compatible? The manuals were published in 1985, so would it run more up-to-date PC software?
2. ■ It fast enough to run modern software at an acceptable speed?
3. Ideally, I would like to use the machine at work for word processing, as I understand my ST can read and write PC floppy disks. Is this correct?
4. How large is the Apricot's RAM and does it run single- or double-sided disks?
5. Supposing I have an appropriate lead made, will the machine support some of the better quality, larger monochrome monitors for PCs? The manual implies that the machine can display up to 16 colours depending upon the software. What kind of picture quality could I expect if I connected it to my Atari SC1224?
6. Although I will not use the machine near any other infra-red reliant hardware, are there any companies that still manufacture 'light-pipes' for the mice and keyboard?
7. There are cables emanating from the computer, keyboard and monitor which I presume connect to a power supply. The trouble is that they all end in loops fastened with a soft metal band and as far I can see, the wires are multiple strands of silvery metal quite unlike what I am used to putting into a plug. What are they?

8. Because of the number of files I am creating as a result of my word processing activities, my floppy disk space is being eaten up and I am saving my pennies for a hard disk drive. In your opinion, would I be better off junking the Apricot and putting the money saved towards a hard drive, spending x-amount of cash getting it in working order and using it as an accessory at work, or selling it if any sort of market exists?

9. Last and probably more stupid, I own a Star LC-10 printer and despite wrestling with the manual, I cannot get it to print a document in near letter quality mode which includes italics. It either prints everything in italics or completely ignores italics and prints ordinary characters. I appreciate that you may not be familiar with such a modest device, but if you know how I can solve this (I actually managed it once but cannot remember how!) please print the answer in words my technophobic great-aunt could understand.

James Woolley, London.

1. The Apricot computer is not PC compatible. The machine runs a hybrid version of MS-DOS, and may even run one or two well-behaved PC packages, but on the whole, an attempt to get it to work with PC software will result in frustration. The Apricot machines constituted a British assault on the 'serious' end of the small computer market dominated by IBM and its clones. It's fair to say that the company failed miserably due to constructing a range of incompatible machines that had silly additions such as LCD displays built into the keyboard in an attempt to create a selling point (rather than simply making them PC compatible and cleanly constructed).

2. What modern software? If you mean PC software then refer to the answer above. If you mean modern Apricot-specific software, I think you'd probably experience great difficulty in finding any!

3. The Atari ST can indeed read and write PC floppies quite happily as the two use - almost - the same disk format (the PC writes an extra drive-type identification byte to a disk during formatting). However, as the Apricot uses its own peculiar

formatting routines, the two machines cannot interchange disks.

4. RAM can be anything from 256K to 512K although I suspect the F2 has 512K. The machine uses floppies of 800K capacity.

5. With some tinkering, it should be possible to get the Apricot to drive a PC monitor. It can't, however, be used with the ST's SC1224. Picture quality? No picture!

6. I'm loathe to answer a question with a question, but what in hell is a light pipe?

7. Why do you presume the cables are intended to be connected to power sources? Probably the most likely source of accurate information about the cables is the previous owner.

They must at some time have had the machine in an operating condition. From your description I find it impossible to suggest what they might be, but would hesitate to connect them to the mains.

8. Do not spend any money on the Apricot. You already have an excellent computer (the ST) which, judging by the quality of your letter, is perfectly adequate for your word processing needs. Money spent on a junked old Apricot will be money thrown down the drain.

As a curiosity for those interested in such things, the Apricot may fetch a few pounds, but I suspect you may be using it as a plaything for younger relatives on visits or as an attractive and unusually play-house for small rodents.

9. You might have told me about the commands which your trying to use now to perform the operation. I can't advise you if I don't know what you're doing wrong. If you're using the correct printer driver, then I'd suggest that you issue an NLQ command at the beginning of any document and control codes to italicise particular words as and when needed. That ought to do the trick.

If you still can't achieve the effect, try switching the printer into near letter quality mode via the front panel and simply issuing italicise commands in the document.

REFLEX MARKETING U.K.

Mail Order Specialists

Atari STE **£375.00** Amiga A500 **£375.00**

All Software at 20% Discount
Latest Titles for Atari & Amiga

Amstrad P.C. Laptops & Toshiba
also 20% Discount.

Phone for latest prices.

0831 441335

Orders despatched 24 Hrs

**Orchard Chambers,
4 Rocky Lane,
Heswall,
Wirral L60 0BY**

MERLIN COMPUTERS

OUR PRICES ARE MAGIC

AMIGA 500 ONLY £379.00 INC BATMAN PACK

ATARI 520 STE POWERPACK£359.99

TRY THE ST'S MIDI POWER

CASIO MT 240 AN EXCELLENT LOW COST MIDI KEYBOARD £89.99
OTHER CASIO KEYBOARDS ALSO AVAILABLE

1 MEG 3.5" DISK DRIVES ST AND AMIGA£75.00

ATARI STFM 1 MEG INTERNAL DRIVE UPGRADE£69.99

STAR LC 10 COLOUR PRINTER.....£215.00

STAR LC10 MONO PRINTER.....£169.99

STAR LC10 COLOUR HEAT TRANSFER RIBBONS - IDEAL
FOR PRINTING YOUR OWN T-SHIRTS ETC.....£17.99

BLANK DISKS AT AMAZING LOW PRICES

10 3.5" DS/DD life time guaranteed£7.50

10 5.25" DS (per 10).....£3.50

Bulk buyers please phone for bulk prices

WE STOCK MANY ITEMS NOT LISTED HERE PLEASE PHONE
FOR ANY ITEMS NOT LISTED

All prices include VAT and P & P

PLEASE NOTE ATARI 8-BIT OWNERS WE SUPPORT YOU

PLEASE PHONE FOR DETAILS

MERLIN COMPUTERS

62 Chester Road East, Shotton,
Deeside, Clwyd CH5 1QB
Tel: 0244 822597

JOHN RUSSELL & CO VALUERS & AUCTIONEERS

FORTHCOMING AUCTIONS

of computer hardware & electronic equipment

Saturday 12th May 1990

Dacorum College, The Marlowes, Hemel Hempstead, Herts.

1200 lots of microcomputers & peripherals inc:

IBM & Compatible systems - IBM P/S 2 30,50,60 & 80 systems, Compaq 286 & 386, Deskpro & portable
systems, Apple Mac Plus & SE systems, Laserwriters & other laser printers

Future Sale Dates:

Saturday 2nd June 1990

Canterbury College, New Dover Road, Canterbury, Kent.

Saturday 16th June 1990

Kempton Park Racecourse, Sunbury, Middlesex.

Viewing & Testing 9.00am / Sales Start 10.30am

For further details and catalogue please contact:

01-681 5413

Selsdon House, 34 Selsdon Rd, South Croydon, Surrey CR2 6PB

**SPECIALISING IN COMPUTER HARDWARE
& COMMERCIAL EQUIPMENT**

Direct action

On reading Shopping Express this afternoon and counting the 'Amiga contacts wanted' adverts, it occurred to me that even if FAST can't be bothered to prosecute these people, surely they could form a committee to go round, duff them up and nick all their disks. I feel this would go some way towards dealing with the problem of piracy.

PS Is it true that Uncle Techtip used to play keyboards for Spandau Ballet?

A Programmer

The 'duff up and nick 'em' committee wouldn't be of any use with pirates because where there's no sense, there's no feeling. I'm sure the chaps at FAST are making copious notes from the contacts pages and waiting for the right moment.

Uncle Techtip used to play spoons for the Accrington Stanley Ballet. Then, until we converted him from analogue to digital, he was a Series 3 modular Moog synthesiser and a practice platform for peripatetic trainee hairdressers.

Slow on the uptake

Like your correspondent, C Watson (*Express* 72), I was unimpressed by Dolan's response to requests for more information on the Dolan XT. (I must say, though, that after a second phone-call I received information within a couple of days.)

The information I eventually got was fairly economical - what does the thing look like for example? Also its DOS proves (on further enquiry) to be DR-DOS, rather than the more usual MS-DOS or PC-DOS. Will this limit the amount of software I can use with the machine?

As a computer beginner, just consid-



EXPRESS MAIL

Britain's liveliest computing forum - packed with comment, controversy and conflict. Write and tell us what you think! Reach us at: **Express Mail, 30 Monmouth St., Bath BA1 2AP**. Sorry, no personal replies, even with an sae. This week's replies written by Martyn Lester.

ering buying my first computer, I feel I want to know more before parting with my cash. Any chance of an article on the Dolan XT?

Ms E Thomas, Bulwell, Nottingham

Poll tax comes first

You surmised (*Express* 72) that I was a bit unhappy that Dolan had failed to answer my sales query about its PCs with commercial promptness.

I can report that I have since had a reply with a near-disarming double edge. "Sorry," says the words-lady, "the delay was due to our being busied with filling in poll tax forms." I may resent their rating me lower than their poll tax, but I am consoled that they seem equally behind hand with Caesar. They don't play favourites, these Dolans.

Mind you, it could have been totally disarming had the answer been "Too busy

waving banners ■ the demos." One would have been tempted to lodge a standing order.

From the information in their reply, it seems I could have had a 40Mb hard disk instead ■ 20Mb for around £150 less than the cost of the Commodore.

I will certainly be keeping Dolan in mind when I go AT, although everything about them is wrapped in conditional tenses. How will I know next year when it ■ timely ■ approach them?

It may not ■ the poll tax distracting them then. But what if they are pulled into some national leek harvesting drive? What if the Welsh rugby selectors have turned to them for salvation?

I was not unhappy at Dolan individually. It's just that the natural perversity of things prevails so often in the computing world. Since I bought my Commodore, Digicom have brought out their version ■ the pack about £165 cheaper. Me, I have

my Commodore and I like it and the year's on-site care.

You report the legal recognition of Computer Elbow. Steam typists don't get it since they vary arm position by belting the carriage return and twiddling the platten wheel. I won't get it either. I can get more hand flourishes into spearing the numerical pad with my left index than Simon Rattle conducting a less than lyrical passage from Stockhausen. Maybe I can sell my method to Mavis Beacon as ■ typing-cum-aerobics program to end them all. Then AT, here I come.

G C Watson, Croydon, Surrey

Computer lore rule one: Whatever you buy, there will be ■ cheaper/better/prettier/faster one out within the week and the supplier that you wish you'd gone to will be the one that you couldn't contact.

Rattle and Stockhausen? More like Russ Conway and Sidesaddle. ►

Oops upside your head, and other meaningless statements...

Ever since I got my first 3.5-inch disks, I have always stored them with that little metallic part facing downwards, whereas my friend has his disks with the metallic bits facing upwards. Is there a correct method of storing them, or is one of us storing them upside down?

To make my contribution to 'My dog has more fleas than yours' debate, you may, if you wish, replace STE with your own computer.

My STE has more fleas than your Nintendo because the ST is more suitable as a business machine.

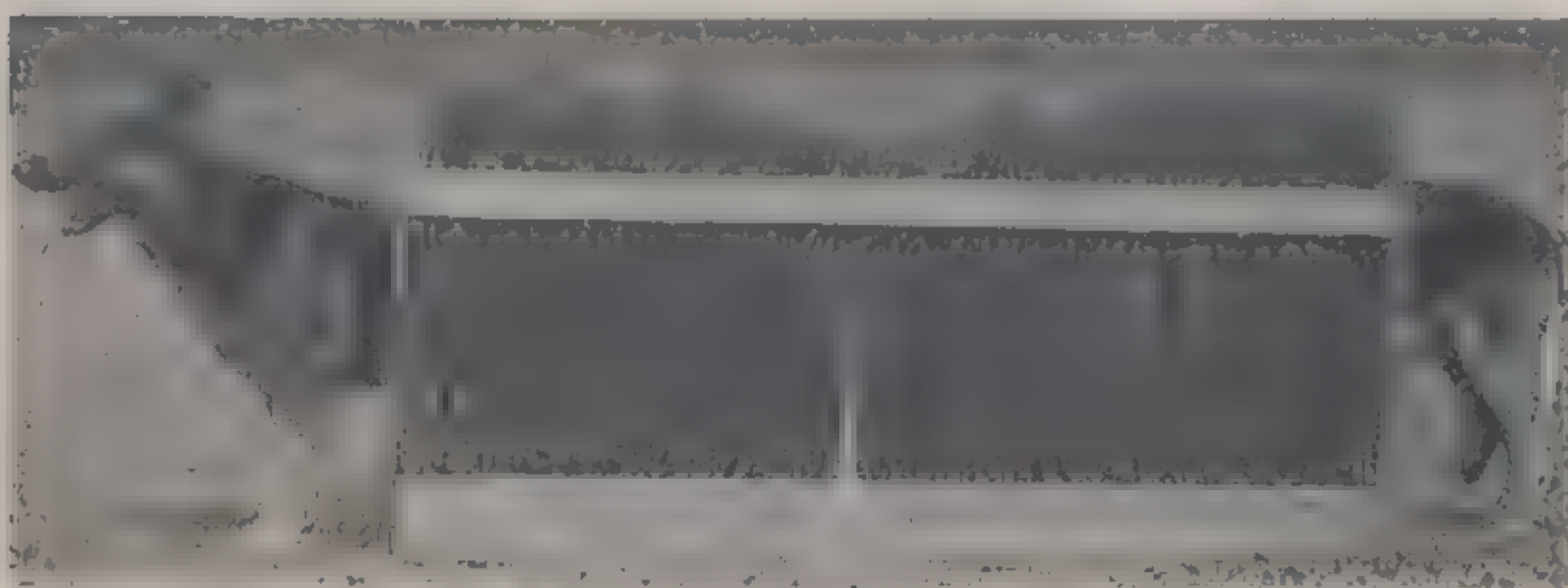
My STE has more fleas than your IBM MS-DOS PC because the ST is more suitable as a games machine.

Enough of that, I have brought in a photo to really show you that my dog has more fleas than yours.

Andrei Elman, Amsterdam, Holland

Here at *Express* we don't seem to have any boxes for keeping our floppies in (I suppose it is one way for Future to keep the cover price down to 58p) and consequently I 'store' mine by placing one flat on the desk and piling all of the others on top of it in a rather pleasant pyramidal arrangement.

Beyond this I do not think it wise to offer any opinion on the correct way up for storing floppies, as this seems to have all the makings of an utterly futile



• If you understand any of this letter you're a better person than me.

'my way up is better than yours' debate.

If you and your friend are seriously concerned that one of you is pulling a flanker, the way to establish strategic parity is surely for both of you to store your disks in alternating orientation, ie if the first disk has the metal upwards then the second should have it downwards and so on.

This way, each of you will be 50 per cent right and 50 per cent wrong simultaneously.

Again, if this takes all the fun out of life, you could

keep your disks all the same way up ■ a carrying pouch and then haul that around by slinging it into your bag at random, not knowing whether you have got it the right or wrong way up until you arrive at your destination.

Regarding the fleas debate, Keith 'Heavy Fettle' Pomfret tells me that the Acorn Atom had more than all the others put together.

I can't pretend that I understand what on earth the pair of you are on about.

FREE! TENSTAR PACK WORTH OVER £229!



FREE! - AMEGAS - by Players



FREE! - INSANITY FIGHT - by Microdeal



FREE! - ART OF CHESS - by SPA



FREE! - MERCENARY COMP - by Novagen



FREE! - BARBARIAN, ULT WARRIOR - by Palace



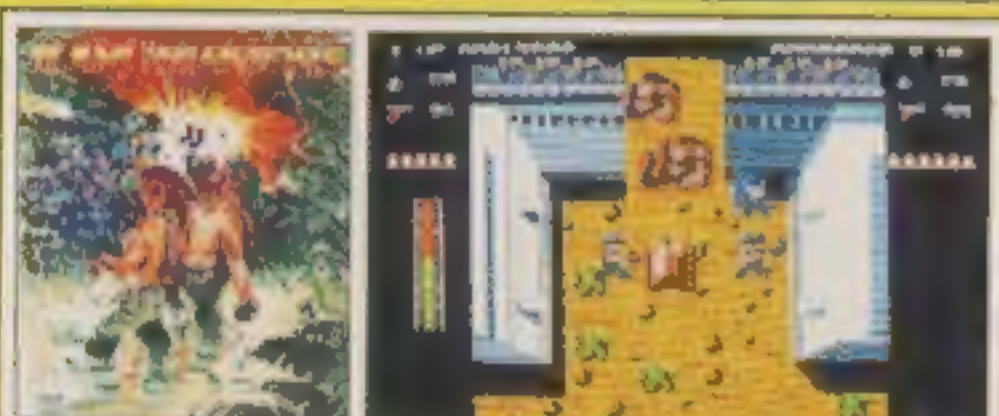
FREE! - TERRORPODS - by Psygnosis



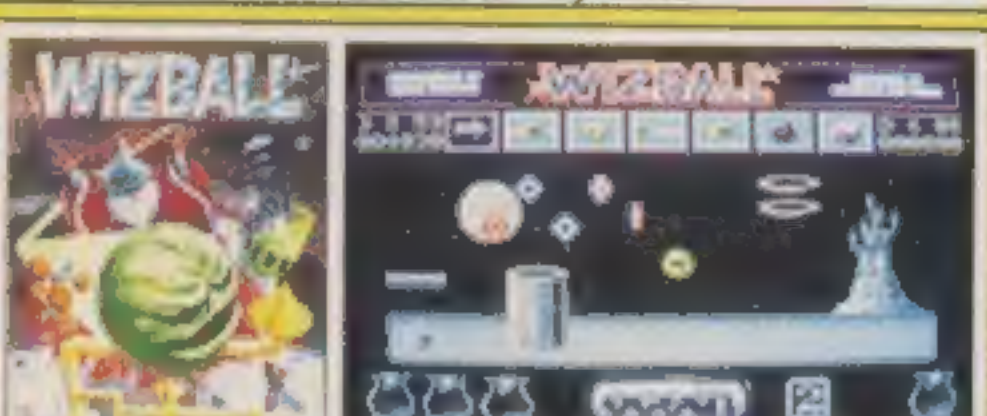
FREE! - BUGGY BOY - by Elite



FREE! - THUNDERCATS - by Elite



FREE! - IKARI WARRIORS - by Elite



FREE! - WIZBALL - by Ocean

Commodore AMIGA



FREE!
LITERATURE
RETURN COUPON
NOW!

£346.95

+VAT
£399

INCLUDES
FREE UK
DELIVERY

The Amiga 500 is one of a new breed of technologically advanced computers, which are now emerging as the new standard for home computing, based around the new Motorola 68000 chip. The A500 has 512K RAM and a 1Mbyte double sided disk drive built-in. It can be connected directly to a wide range of monitors, or to a domestic TV set through a TV modulator. Designed with the user in mind, the A500 features a user friendly WIMP environment and comes supplied with a free mouse. And, when you buy your Amiga from Silica Shop, the UK's No1 Amiga specialists, you will experience an after sales service that is second to none, including a technical support helpline and free newsletters and price lists. Return the coupon below for our current information pack, which will give details of the Silica service and the very latest Silica Amiga offers. E&OE

WHY SILICA SHOP?

Before you decide when to buy your new Commodore Amiga computer, we suggest you consider very carefully WHERE you buy it. There are MANY companies who can offer you a computer, a few peripherals and the top ten selling titles. There are FEWER companies who can offer a wide range of products for your computer as well as expert advice and help when you need it. There is ONLY ONE company who can provide the largest range of Amiga related products in the UK, a full time Amiga specialist technical helpline and in-depth after sales support, including free newsletters and brochures delivered to your door for as long as you require after you purchase your computer. That one company is Silica Shop. We have been established in the home computer field for ten years and can now claim to meet our customers requirements with an accuracy and understanding which is second to none. Here are just some of the things we can offer you.

THE FULL STOCK RANGE: The largest range of Amiga related peripherals, accessories, books and software in the UK.

AFTER SALES SUPPORT: The staff at Silica Shop are dedicated to help you to get the best from your Amiga.

FREE NEWSLETTERS: Mailed direct to your home as soon as we print them, featuring offers and latest releases.

FREE OVERNIGHT DELIVERY: On all hardware orders shipped to Silica Shop customers within the UK mainland.

PRICE MATCH PROMISE: We will normally match our competitors offers on a 'same product same price' basis.

FREE TECHNICAL HELPLINE: Full time team of Amiga technical experts to help you with your technical queries.

But don't just take our word for it. Complete and return the coupon below for our latest Amiga literature and begin experience the Silica Shop specialist Amiga service.

PHOTON PAINT PACK

A500 Computer	£399.99
TV Modulator	£24.99
Photon Paint	£69.95
TenStar Pack	£229.50
TOTAL RRP:	£724.43
LESS DISCOUNT:	£325.43
PACK PRICE INC VAT:	£399

1084S MONITOR PACK

A500 Computer	£399.99
1084S Colour Monitor	£299.99
Photon Paint	£69.95
TenStar Pack	£229.50
TOTAL RRP:	£999.43
LESS DISCOUNT:	£350.43
PACK PRICE INC VAT:	£649

FREE FROM SILICA

When you buy the Amiga 500 from Silica Shop, you will not only get a high power, value for money computer, we will also give you some spectacular free gifts. First of all, we are now including a TV modulator with every A500 stand alone keyboard, so you can plug your Amiga straight into your TV at home (the modulator is not included with the A500+A1084S pack as it is not required for use with monitors). Secondly, we have added a free copy of Photon Paint, an advanced graphics package with an RRP of £69.95. Last (and by no means least!), so that you can be up and running straight away, we are giving away the sensational TENSTAR GAMES PACK with every A500 purchased at Silica Shop. This pack features ten top Amiga titles which have a combined RRP of nearly £230! Return the coupon for details.

FREE TENSTAR PACK

When you buy your Amiga 500 from Silica Shop, we want to make sure you get the best deal possible. That is why we are giving away the TENSTAR GAMES PACK worth nearly £230, absolutely FREE with every A500 purchased from us. The TenStar Games Pack includes ten titles for the A500, each individually packaged in its own casing with instructions.

TOTAL RRP: £229.50 INC VAT

DO YOU OWN AN AMIGA?

If you already own an Amiga computer and would like to be registered on our mailing list as an Amiga user, let us know. We will be pleased to send you copies of our price lists and newsletters FREE OF CHARGE as they become available. Complete the coupon and return it to our Sidcup branch and begin experiencing a specialist Amiga service that is second to none.

SILICA SHOP:

SIDCUP (& Mail Order) 01-309 1111
1-4 The Mews, Hatherley Road, Sidcup, Kent, DA14 4DX
OPEN: MON-SAT 9am - 5.30pm LATE NIGHT: FRIDAY 9am - 7pm

LONDON 01-580 4000
52 Tottenham Court Road, London, W1P 0BA
OPEN: MON-SAT 9.30am - 8.00pm LATE NIGHT: NONE

LONDON 01-629 1234 ext 3914
Selfridges (1st floor), Oxford Street, London, W1A 1AB
OPEN: MON-SAT 9am - 6.00pm LATE NIGHT: THURSDAY 9am - 8pm

To: Silica Shop Ltd, Dept 22- NCE 0490, 1-4 The Mews, Hatherley Rd, Sidcup, Kent, DA14 4DX
PLEASE SEND ME FREE LITERATURE ON THE AMIGA

Mr/Mrs/Ms: Initials: Surname:

Address:

Postcode: Dept NCE 0490

Do you already own a computer
If so, which one do you own?

DR-DOS will run all DOS programs quite happily, and yes it really is time that Dolan sent their latest kit for us to prod around. We'll keep working on it.

I reckon I'll keep clear of the poll tax debate, as snotty phone calls from Iolo Davidson can be a real drag when you are sitting here of a morning nursing a first-rate hangover, but I reckon its safe to say that the Welsh rugby selectors will need to appeal to a higher authority than Dolan for comfort in their hour of need.

■ Another planet

Does Peter Gerrard read the mag that he writes for and do *Express* read articles before printing them? I am referring to Issue 75's C64 section (should be bigger) where he tells of a company called Xenon Technology, where several games can be had for the reasonable sum of £6.45.

This firm went bust weeks ago, and this was splashed over your pages bigger than a hedgehog on the M1 and, to make matters worse, you print a letter referring to Xenon's collapse. Well done M D Clayton. Apart from another brill mag, the April Fool's jokes were very good.

Just one last thing, can we have a hedgehog column so they can read *Express* instead of playing on the M1?
C E Vickers, Middlesbrough, Cleveland.

I am writing to you in the hope that this letter will stop Commodore 64 owners parting with their hard-earned cash by sending it to Xenon Technology which was wound up earlier this year.

Unfortunately, I was sorry to see that in *Express* 75, the Commodore 64 bit of the page carried a section saying that some of the most popular games were available from Xenon Technology at a very low price indeed. I only hope that the people that were tempted by this offer read the

rest of the magazine, especially the letter entitled 'The garden fence', instead of rushing for their chequebooks the minute they read the section.

Also, on the theme of money, I was interested in Colin Stone's letter 'Spoilt rotten' (*Express* 73), about the law on VAT. Reading the present issue, yet again, reveals adverts displaying the immortal words 'VAT not included'.

In the interests of the consumer, I think these companies should be referred to the ASA or similar organisation who should deal with them accordingly.
Christian Hewison, Ryde, Isle of Wight

You are both quite correct. Do not send a penny to Xenon, as you will be wasting your time.

I think Pete Gerrard must have been on a package tour of the planet Zanussi at the time of the firm's collapse. In order to put him straight, we are attempting to contact him by sitting around a table and each placing one finger on an inverted wine glass.

The production editor, assistant production editor and myself all read Pete's article before it went to press, and we are standing in a circle soundly chastising each other with barbed wire for not spotting the error.

Although the hedgehog is unique as a two-dimensional insectivore, I do not think this justifies a column. Next it will be the duck-billed platypus, and then who knows where it will end?

On advertisements, we have contacted both the Advertising Standards Authority and our local Trading Standards Office for guidance on this matter. As far as we can tell, provided that the ads do say clearly and legibly that VAT has to be added then they are legal. Both ASA and TSO did say, though, that they would prefer to see the

whole VAT-inclusive price shown in a consumer magazine, and I cannot personally see what advertisers think they have to gain from the exercise.

■ Twilight zone

I read K Simpon's letter in *Express* 69 with keen interest and, since I am a short-story writer specialising in such speculative thinking, also with familiarity.

In fact, I'd like to focus his logic. It appears to me, as it appeared to him, that the possibilities of science-fiction are diminishing, as all the great and the small ideas since the advent of the genre have been written and invented. It therefore follows that the pool of ideas will eventually dry and grow stagnant.

In an analysis of history, it also follows that science-fiction, which has always remained one step ahead of reality, will continue to do so. The vice of expendable dreams and recorded thoughts is beginning to close in. This is the result of what one can term the 'circle of progress'. That circle can be defined as a continuous flux between imagination and achievement, and soon there may be no more imagination.

There is another result which I would like to clarify. The result of what Mr Simpson called the 'personal worlds' of every man is leading us, initially, to less and less communication socially and, ultimately, social catalepsy.

How about a spot of theorising? The question is who wants room? Present life is almost fully automated - work, rest and play. Since the power of electronics, radionics, avionics and photo-electronics, and all the might of positronics, thermionics, atomics and the great right hand of kinetic force, is acting out all the essentials since the dawn of man, we are left with only the workings of all our thought. Surely the ultimate state of affairs.

And what the hell did evolution give us our fingers for anyway?

For pressing buttons, that's what.
M A Bates, Winchmore Hill, North London

All the great and small ideas written and invented? I think not. Firstly, all that has been written has clearly not yet been invented. Speech recognition and artificial intelligence advances between them have yet to land in every home the computer that holds a rational conversation with you. Nor has the invented become the implemented - the officeless society predicted as imminent almost 15 years ago has yet to arrive.

On the writing side, I grant you that technological advance has accelerated to such an extent that sci-fi authors are harder pressed than they used to be to stay ahead of the game, but the job remains to extrapolate science fact and muse on what should be achievable and has yet to be achieved.

Your fear is that there is a limit to imagination. Time will surely prove your anxieties unfounded. ■

NEXT WEEK

IT'S SHOWTIME

The Which Computer? Show brings its usual plethora of new products.

BOXING CLEVER

A new case for the A500 promises a tidier upgrade path

ACCESS TIME

The ultimate desktop accessory for the ST reviewed

PLUS

- Hard driving: Adding real storage power to your machine
- Music software on the Spectrum and SAM
- The Shopping Express guide to ST software
- Tech Tips: technical advice with the human touch
- The PD Column on how to get something for nothing
- Your letters

WITH

A column for your machine. Expert correspondents on ST, PC, Amiga, C64, Spectrum, Archimedes, BBC, MSX, QL, PCW, XE SAM Coupé and CPC

AND

Six pages of up-to-the-minute news

STAY AHEAD WITH EXPRESS

MAKE SURE OF YOUR COPY OF NEXT WEEK'S EXPRESS

Hand this form to your newsagent to get your copy of *Express* next Thursday

TO THE NEWSAGENT: Please deliver to me / reserve for me
(delete as applicable)

_____ copies of *New Computer Express*

NAME

ADDRESS

.....

.....

.....

ATARI ST and AMIGA

Sixteen Bit Superdeals from the Sixteen Bit Specialists!
CUSTOMERS PLEASE NOTE! When comparing prices remember ours include fast delivery by courier.

NEW!!

520STFM Power Pack

£359.00

Inc. VAT and Next Day Delivery

**NOW INC
HYPERPACK**

Power Pack includes:

- ★ 520STFM 512K Keyboard with Built-in 1 Megabyte disk drive and TV Modulator
- ★ Over £550 worth of games software, including OutRun, Gauntlet 2, R-Type, Space Harrier, Super HangOn and 16 more Top Games
- ★ Organiser Business Software including WORDPROCESSOR, SPREADSHEET and DATABASE
- ★ First BASIC and First Music Utility Software
- ★ FREE JOYSTICK AND FREE MOUSE MAT WORTH £4.95
- ★ All leads, manuals PLUS MOUSE and free mains plug!
- ★ Hyper Pack S/W inc Hyper Draw, Hyper Paint and Borodino Battlescape War Game

520STFM DISCOVERY PACK

£279.00

NEW

NEW! fantastic value for money pack includes:

- ★ 520 STFM 512K memory keyboard with built in 1 megabyte double sided disk drive and TV modulator
- ★ Game Pack including OUTRUN, SPACE HARRIER, CARRIER COMMAND and BOMB JACK
- ★ UTILITY PROGRAMMES inc STOS GAME CREATOR, NEOCHROME painting package and FIRST BASIC programming language
- ★ ST tutorial programme and 'DISCOVER YOUR ST' beginners guide to the ST computer
- ★ PLUS MOUSE, MOUSE MAT, MANUALS, ALL LEADS, METACOMCO BASIC AND MAINS PLUG!

1040STE BUSINESS PACK

£449.00

- ★ Includes the new 1 megabyte 1040STE keyboard plus over £200 worth of business software including WORD UP wordprocessing software, featuring glossary and mail merge, K-Spread 3.0 spread sheet and SUPERBASE PERSONAL Database software. Also includes Metacomco BASIC, Mouse Pad, all Leads, Manuals and Mouse.

MEGA 1 BUSINESS Pack

£529.00

Features:

- ★ Separate Keyboard and System Unit
- ★ Inc. all software supplied with 1040 STE Business Pack
- ★ Blitter chip installed for faster graphics
- Inc SM124 Mono Monitor.....£628.00

ACCESSORIES

Quickshot II Turbo Joystick	£9.95	Branded Memorex 3.5" DSDD Disks	
Competition Pro 5000 Joystick	£13.95	Box of 10	£13.95
Competition Pro with Autofire	£14.95	Memorex Disk Box	
Konix Speedking Joystick.....	£11.95	For 40 3.5" Disks	£8.95
Red Mouse Mat with Amiga logo	£5.95	Amiga 1/2 Meg Expansion	£119.95
Plain blue Mouse Mat	£4.95	Control Centre Atari or Amiga	£44.95

Contriver Amiga and ST Mouse with FREE Holder and Mouse Pad £20.95

PRINTERS

Star LC24-10 24Pin incl. lead ST/Amiga	£249.00
Star LC10 including interface lead for ST/Amiga.....	£169.00
Star LC10 colour including interface lead for ST/Amiga.....	£219.00
Citizen 120D including interface lead for ST/Amiga	£139.00

SEIKOSHA 80 COLUMN PRINTERS - AMAZING PRICES

Seikosha 8 pin NLQ including interface lead for ST/Amiga.....	£139.00
Seikosha 24 pin LQ including interface lead for ST/Amiga	£239.00

AMIGA A500 BAT GAMES PACK

£399.00

Inc. VAT and Next Day Delivery



BAT Games Pack includes:

- ★ Amiga A500 512K Keyboard with Built-in 1 Megabyte disk drive.
- ★ Free TV modulator worth £24.99 allowing you to use the Amiga with a normal TV.
- ★ DELUXE PAINT II GRAPHICS PACKAGE.
- ★ PHOTON PAINT II graphics package with animation worth £70.00.
- ★ FREE, only-just-released BATMAN - THE MOVIE games software.
- ★ NEW ZEALAND STORY arcade games software.
- ★ F16-INTERCEPTOR - amazing 3D flight simulator software.
- ★ A further £230 worth of Games Software, including BUGGY BOY, MERCENARY, BARBARIAN, WIZBALL & six more games.
- ★ FREE JOYSTICK, MOUSE MAT AND 10 BLANK DISKS.
- ★ Amiga BASIC, Amiga EXTRAS 1.3, Workbench 1.3 PLUS the Amiga Step by Step Tutorial.
- ★ All leads, manuals PLUS MOUSE and mains plug!

AMIGA 1 MEG BAT GAME PACK

£529.00



1 Meg Bat Games Pack includes:

- ★ Fitted 1 Megabyte Memory Expansion + Real Time Clock Card
- ★ Everything listed for the A500 Bat Game Pack
- ★ DRAGON'S LAIR 1 MEG MEGAGAME!

AMIGA A500 CLASS OF THE 1990'S BUSINESS + EDUCATIONAL PACK £549.00

FEATURES:

- ★ Amiga A500 + TV Modulator
- ★ Midi Interface + Software
- ★ Kind Words II word processor
- ★ Page Setter DTP
- ★ Super Base Personal Database
- ★ Maxiplan 500 Spreadsheet
- ★ Amiga Logo, BBC Emulator, Deluxe Paint II
- ★ Mouse mat, 10 blank disks and disk wallet

EXTERNAL DISK DRIVES

Atari SF314 1 Megabyte.....	£139.00
Amiga A1010 1 Megabyte	£109.00
Cumana 1 Megabyte Atari or Amiga	£89.95
NEC 1 Megabyte Atari or Amiga	£79.95
Atari Megafile 30 Hard Disk.....	£439.00
New! Commodore A590 20 meg hard disk.....	£369.00
A590 Hard Disk + Memory Upgrade installed	Phone

MONITORS

Commodore Amiga A1084 stereo Monitor inc lead	£269.00
Atari SC1224 Colour Monitor inc lead.....	£259.00
Atari SM124 Mono Monitor including lead.....	£119.00
Philips CM8833 stereo colour monitor inc. lead for ST or Amiga	£259.00

CREDIT CARD ORDERLINE ☎ 0908 378008 (Mon - Sat 9am - 6pm)

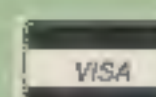
To order either call the orderline above with your Credit Card details OR make a cheque or P.O. payable to:
 Digicom Computer Services Ltd and send it with your order to the address below. Callers are also most welcome at the address below.

DIGICOM

Unit 36, Wharfside, Fenny Stratford, MILTON KEYNES, MK2 2AZ.

All prices include VAT and delivery by courier

Licensed Credit Brokers * Written quotations available on request APR 34.5% Variable.



THE POWER BREAKS THROUGH...

AMIGA ACTION REPLAY™

ONLY
£59.99
POST FREE

THE WORLD'S
MOST POWERFUL
FREEZER-UTILITY
CARTRIDGE IS HERE

JUST LOOK AT THE UNMATCHED RANGE OF FEATURES

- **AMIGA ACTION REPLAY SIMPLY PLUGS INTO THE EXPANSION PORT OF YOUR AMIGA 500 AND GIVES YOU THE POWER TO FREEZE MOST ANY PROGRAM, THEN YOU CAN:-**
- **SAVE THE ENTIRE PROGRAM IN MEMORY TO DISK**
Special compacting techniques enable upto 3 programs to fit on one disk. Unique FDOS power means that the programs reload at upto 4 TIMES FASTER than Amiga Dos - even independantly of the cartridge.
- **UNIQUE INFINITE LIFE/TRAINER MODE**
Allows you to generate more and even infinite lives, fuel, ammo etc. Perfect as a trainer mode to get you past that "impossible" level. Very easy to use.
- **SPRITE EDITOR**
The full sprite editor allows you to view/modify the whole sprite set including any 'attached' sprites.
- **VIRUS DETECTION**
Comprehensive virus detection and removal features to protect your software investment. Works with all presently known viruses.
- **SAVE PICTURES AND MUSIC TO DISK**
Pictures and sound samples can be saved to disk. Files are IFF format suitable for use with all the major graphic and music packages.
- **SLOW MOTION MODE**
Now you can slow down the action to your own pace. Easily adjustable from full speed to 20% speed. Ideal to help you through the tricky parts!
- **RESTART THE PROGRAM**
Simply press a key and the program will continue where you left off.
- **FULL STATUS REPORTING**
At the press of a key now you can view the machine status. Including Fast Ram, Chip Ram, Ramdisk, Drive status, etc.

PLUS THE MOST POWERFUL MACHINE CODE FREEZER/ MONITOR

MORE FEATURE THAN YOU COULD EVER NEED. HERE ARE JUST SOME;

- Full M68000 Assembler/Disassembler
- Full screen editor
- Load /Save block
- Write string to Memory
- Jump to specific address
- Show Ram as text
- Show Frozen picture
- Play resident sample
- Show and edit all CPU registers and flags
- Calculator
- Help command
- Full search feature
- Unique Cutom Chip Editor allows you to see and modify all chip registers-even write only registers
- Notepad
- Disk handling - show actual track, Disk Sync pattern Etc.
- Dynamic Breakpoint handling
- Show memory as HEX, ASCII, Assembler, Decimal
- Copper Assemble/Disassemble.

REMEMBER AT ALL TIMES YOU ARE INTERROGATING THE PROGRAM IN IT'S "FROZEN" STATE WITH ALL MEMORY AND REGISTERS INTACT.-INVALUABLE FOR THE DE-BUGGER OR JUST THE INQUISATIVE!

HOW TO GET YOUR AMIGA ACTION REPLAY...

TELEPHONE (24 Hrs) - **0782 744707** - CREDIT CARD ORDERS ONLY

WE WILL DESPATCH YOUR ORDER QUICKLY & EFFICIENTLY TO ENABLE YOU TO START RECIEVING THE BENEFITS OF YOUR PURCHASE WITHIN DAYS, NOT WEEKS.

ORDERS NORMALLY DESPATCHED WITHIN 48Hrs.

ALL CHEQUES/POSTAL ORDERS MADE PAYABLE TO...

DATel ELECTRONICS LTD.,

GOVAN RD., FENTON INDUSTRIAL ESTATE, FENTON, STOKE-ON-TRENT, ST4 2RS, ENGLAND

TECHNICAL/CUSTOMER SERVICE 0782 744324

